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# TRANSCRIPT OF RECORD

## Supreme Court of the United States

OCTOBER TERM, 1931

## No. 332

J. HOWARD LEMAN, ADMINISTRATOR C. T. A. OF THE ESTATE OF GEORGE E. BELCHER AND GEORGE E. BELCHER COMPANY, PETITIONERS,

*vs.*

KRENTLER-ARNOLD HINGE LAST COMPANY

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FIRST CIRCUIT

PETITION FOR CERTIORARI FILED AUGUST 29, 1931

CERTIORARI GRANTED OCTOBER 26, 1931

(36,146)

# UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FIRST CIRCUIT.

OCTOBER TERM, 1930.

No. 2525.

## Krentler-Arnold Hinge Last Company,

DEFENDANT, APPELLANT,

*v.*

## J. Howard Leman, Administrator c.t.a., et al.,

PLAINTIFFS, APPELLEES.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF MASSACHUSETTS, FROM FINAL DECREE (LOWELL, J.), AUGUST 20, 1930.

# TRANSCRIPT OF RECORD.


ROBERT CUSHMAN,
OTTO BARTHEL,
*Specially,*
*for Appellant.*

ELLIS SPEAR, JR.,
EDWARD N. GODING,
EIFFEL B. GALE,
*for Appellees.*

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# UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FIRST CIRCUIT.

OCTOBER TERM, 1930.

No. 2525.

KRENTLER-ARNOLD HINGE LAST COMPANY,
DEFENDANT, APPELLANT,

*v.*

J. HOWARD LEMAN, ADMINISTRATOR C. T. A., ET AL.,
PLAINTIFFS, APPELLEES.

## TRANSCRIPT OF RECORD OF DISTRICT COURT.

No. 1853, EQUITY DOCKET.

KRENTLER-ARNOLD HINGE LAST COMPANY

*v.*

GEORGE E. BELCHER LAST COMPANY.

IN THE MATTER OF CONTEMPT PROCEEDINGS.

J. HOWARD LEMAN, ADMINISTRATOR C. T. A. OF THE ESTATE OF GEORGE E. BELCHER, DECEASED, AND GEORGE E. BELCHER COMPANY, PETITIONER,

*v.*

KRENTLER-ARNOLD HINGE LAST COMPANY, RESPONDENT.

DOCKET ENTRIES.

| | | | |
|---|---|---|---|
| Sept. | 12 | 1923 | Bill filed |
| " | 12 | " | Appearance of James R. Hodder for plaintiff filed |
| Nov. | 24 | " | Answer filed |
| Apr. | 22 | 1924 | Plaintiff's answer to defendant's counterclaim filed |

June 3 1924 LOWELL, J.—Final Hearing, etc.

Aug. 3 1925 LOWELL, J.—Decree dismissing bill on letters patent Nos. 842,319 and 969244 and for defendants on their counterclaim against plaintiff on letters patent No. 1,195,266 for an injunction and an accounting. Decree filed and entered.

Aug. 31 " Petition for appeal by plaintiff, Krentler-Arnold Hinge Last Co.

Sept. 10 1926 Mandate of the U. S. Circuit Court of Appeals received and filed. Decree of the District Court is modified to conform to opinion passed down this day, and as modified is affirmed with costs to the appellees; costs in U. S. Circuit Court of Appeals for which execution is to issue from said District Court in favor of said J. Howard Leman, Admr., et al., Defendants, Appellees, and against said Krentler-Arnold Hinge Last Company, plaintiff, appellant, taxed at twenty dollars ($20).

Nov. 17 1926 LOWELL, J.—Decree after Mandate for defendant for an injunction accounting and reference to a Master; defendant to recover costs taxed at $ and execution to issue therefor. Decree filed and entered.

Nov. 26 1926 Injunction issued.

March 1 1928 BREWSTER, J.—Final decree confirming Master's Report for the recovery by defendant-counter claimant, George E. Belcher Company, from the plaintiff, Krentler-Arnold Hinge Last Company, of $28901.98 with costs. Decree filed and entered.

May 21 1928 Execution returned to court fully satisfied filed.

On the fourth day of June, A. D. 1929, the following Petition and Motion were filed:

PETITION OF DEFENDANT COUNTER-CLAIMANTS FOR AN ORDER HOLDING PLAINTIFF IN CIVIL AND CRIMINAL CONTEMPT FOR VIOLATION OF PERMANENT INJUNCTION.

[Filed June 4, 1929.]

*To the Honorable Judges of the United States District Court for the District of Massachusetts:*

Now comes the petitioners, George E. Belcher Company and J. Howard Leman, counter-claimants in the above identified action, by their counsel, Ellis Spear, Jr., and respectfully represents to this Honorable Court as follows:

In the above identified cause,

That after trial and hearing upon the merits of the issue raised by the bill of complaint charging infringement of Krentler patent 842,319 and Carl patent 969,244, and upon the answer and counter-claim filed by defendant counter-claimants, charging infringement by plaintiff of patent 1,195,266, to Otto A. Peterson, the District Court filed an opinion July 24, 1924, finding the Krentler patent not infringed, and finding claim 1 of the Carl patent to be void, and further finding claims 1, 2, 3, 4, 6 and 7 of the Peterson patent to be valid and infringed by the plaintiff; a copy of said opinion is attached hereto and identified as Defendant Counter-Claimants' Exhibit 1. This opinion of the District Court is reported at 300 F. R. 834.

That hereafter, on or about August 3, 1925, an interlocutory decree was entered, a certified copy of said interlocutory decree being made a part hereof and attached hereto and identified as Defendant Counter-Claimants' Exhibit 2.

That the plaintiff appealed from the decree of the District Court, and after argument of the appeal the United States Circuit Court of Appeals for the First Circuit affirmed, in part, the decree of the District Court and modified the decree in part, the part affirmed including that portion of the finding and decree of the District Court finding the Peterson patent to be valid and infringed; a

copy of the opinion of the United States Circuit Court of Appeals for the First Circuit is made a part hereof and is attached hereto and identified as Defendant Counter-Claimants' Exhibit 3; the opinion of the United States Court of Appeals for the First Circuit s reported at 13 F. R. (2d) 796.

That on or about November 16, 1926, there was entered in the District Court a decree after mandate, a certified copy of such decree being made a part hereof and attached hereto and identified as Defendant Counter-Claimants' Exhibit 4.

That on or about the twenty-sixth day or November, 1926, a permanent injunction was issued against the plaintiff, enjoining and commanding the plaintiff, Krentler-Arnold Hinge Last Company, its officers, directors, attorney, agents and employees, and each of them and all others acting by or for the plaintiff or upon its behalf, from directly or indirectly making or causing to be made, using or causing to be used, selling or causing to be sold, lasts embodying or containing the invention covered by claims 1, 2, 3, 4, 6 and 7 of Letters Patent of the United States 1,195,266, issued August 22, 1916 to Otto A. Peterson, or any substantial or material part thereof, or any substantial equivalent or colorable imitation thereof.

That service of a copy of said injunction was acknowledged on behalf of the plaintiff, Krentler-Arnold Hinge Last Company, the second day of December, 1926 by James R. Hodder, counsel of record for the Krentler-Arnold Hinge Last Company. A certified copy of the permanent injunction is attached hereto and made a part hereof and is identified as Defendant Counter-Claimants' Exhibit 5.

That additional notice of the issuance of the injunction was given directly to the plaintiff by the defendant counter-claimants, by sending by registered mail, return receipt requested, a certified copy of the injunction, said letter having been sent to the principal place of business of the Krentler-Arnold Hinge Last Company at Detroit, Michigan; and that a copy of the injunction was also sent to Fred Drew, a director of the Krentler-Arnold Hinge Last

Company, plaintiff, residing at Brockton, Massachusetts, within this judicial district.

Petitioner is informed and believes and therefore avers that since the service of said injunction the plaintiff, its officers, directors, agents and/or employees and including specifically Fred Drew, a director of plaintiff, in willful and deliberate violation of the rights of the defendant counter-claimants and of the injunction aforesaid, has made or caused to be made, used or caused to be used, and sold or caused to be sold, within this judicial district and elsewhere in the United States, a shoe last embodying and containing the invention of said Peterson patent 1,195,266, and more particularly in infringement of claims [1], 2, 3, 4, 6 and 7 of said Peterson patent, infringement of which patent was enjoined under the injunction hereinbefore referred to, and that the Krentler-Arnold Hinge Last Company, since the service of the injunction aforesaid, has advertised for sale, and has sold, longitudinally resilient connecting members exceeding 200,000 in number to various last manufacturers within this judicial district, and elsewhere in the United States, with the knowledge that said links were to be embodied in shoe lasts comprising a fore-part and a heel part, so that the longitudinally resilient connecting members supplied by plaintiff are connected to both the heel part and the fore-part of the last at points which are in a line at one side of the axis of movement of the heel part when the last is extended and at the other side of said axis when the last is collapsed, so that the longitudinally resilient connecting member serves to hold the last parts resiliently in either their extended or collapsed position, all of which acts by the plaintiff have been done without the consent and authority of the defendant counter-claimants, and in violation of their rights and in willful and deliberate violation of the injunction aforesaid.

That petitioner is informed and believes and therefore avers, that the acts of the plaintiff in violation of the injunction aforesaid, have been and are, and continue to be, in deliberate and willful violation of the injunction aforesaid; that after the injunction issued and was served upon the plaintiff, and reference was made

to a master, in order to ascertain the profits and damages to which the counter claimants were entitled, and upon the return of the master's report to the District Court, said District Court on or about February 14, 1928 filed an opinion directing that a decree be entered requiring the plaintiffs to pay $28,901.98, and that $18,430 of this amount was allowed as increased damages on account of the willful and deliberate infringement of the Peterson patent; a copy of said opinion of the District Court is attached hereto and made a part hereof and identified as Counter-Claimants' Exhibit 6, said opinion also being recorded at 24 F. R. (2d) 423; petitioner is further advised and believes and therefore avers that after the date of the injunction and the service thereof, and during the accounting proceedings before the master, that the plaintiff was developing, contriving and testing the form of longitudinal resilient connecting member adapted to be inserted in shoe lasts in such a manner as to constitute a substantially equivalent and colorable variation of the form of the invention shown and described as an illustrative form in the Peterson patent, and as a substantial equivalent and colorable variation of the longitudinally resilient connecting member employed in the last, which was before the court at the original trial and hearing; and that plaintiff, in its advertisements dated as early as May 9, 1928, represented that over one hundred thousand pair of the plaintiff's modified links, designated as a sliding link, were then in use, and that in plaintiff's advertisements dated April 25, 1928 in the American Shoe Making plaintiff represented that it had for months been testing out its so-called new sliding link hinge, plaintiff further representing in said advertisement that the sliding link hinge when embodied in the last had a snap to it, and that there was exerted a "constant pressure between the heel and toe parts of the last, making the same very rigid without any additional locking features" all of which features are advantages resulting from the use of the Peterson invention; and that the various acts of the plaintiff, hereinabove set forth, and alleged to be in willful and deliberate violation of the injunction aforesaid, were acts indicating a determination to appropriate the substance of the Peterson

invention in a modified form prior to the payment of plaintiff on May 8, 1928 of an amount to satisfy the amount awarded in the opinion of the court dated February 14, 1928.

That the acts of the plaintiff, above alleged, have resulted in irreparable damage and injury to the defendant counter-claimants, and will continue to result in irreparable loss and damage to the defendant counter-claimants unless the plaintiff is further restrained, or is punished for the violation of the injunction already issued.

Wherefore your petitioner prays that an attachment be issued against the plaintiff, Krentler-Arnold Hinge Last Company, for contempt of this court;

That the plaintiff be punished for civil contempt for violating the injunction heretofore issued in this case against it, and that the plaintiff be ordered to account for and pay damages of the defendant counter-claimants, together with the profits of the plaintiff, resulting from the further acts of infringement in violation of the injunction, and that the plaintiff be further ordered to pay to the defendant counter-claimants the expenses and costs, including the counsel fee incident to the bringing of these contempt proceedings, and that if any damages, profits, expenses and costs awarded be not paid by the plaintiff, that an attachment issue against the plaintiff, its officers, directors and employees;

That the plaintiff be held guilty of criminal contempt for the willful, deliberate and contemptuous acts in violation of the injunction and punished accordingly;

That defendant counter-claimants have such other and further relief as justice and equity may require.

GEORGE E. BELCHER COMPANY,
*by* ERNEST B. SOUTHWORTH, *Vice-President,*

J. HOWARD LEMAN,
*Administrator c. t. a. Estate*
*of George E. Belcher, Deceased*
*(Defendant Counter-Claimants).*

ELLIS SPEAR, Jr.,
*Counsel for Defendant Counter-Claimants,*
625 Tremont Building, Boston, Mass.

COMMONWEALTH OF MASSACHUSETTS,
COUNTY OF NORFOLK, SS.

On this twenty-second day of May personally appeared Ernest B. Southworth, and made oath that he is vice-president of the George E. Belcher Company, one of the defendant counter-claimants and petitioners named in the foregoing petition; that he has read the same and knows the contents thereof; and that the statements therein contained are true as of his own knowledge except in so far as they have been stated on information and belief, and as to these, he believes them to be true. Before me,

H. ELLIOT WILLIS,
*Notary Public.*

[SEAL]

COMMONWEALTH OF MASSACHUSETTS,
COUNTY OF SUFFOLK, SS.

On this twenty-seventh day of May, personally appeared J. Howard Leman, and made oath that he is administrator c. t. a. of the estate of George E. Belcher, deceased, one of the defendant counter-claimants and petitioners named in the foregoing petition; that he has read the same and knows the contents thereof; and that the statements therein contained are true as of his own knowledge except in so far as they have been stated on information and belief, and as to these, he believes them to be true.

Before me,

LEONARD D. DRAPER,
*Notary Public.*

[SEAL]

COUNTER-CLAIMANTS' EXHIBIT 2.

District Court of the United States
District of Massachusetts.

In Equity No. 1853

Krentler-Arnold Hinge Last Company Plaintiff

v.

J. Howard Leman, Administrator C. T. A. of the estate of George E. Belcher, deceased, George E. Belcher Company, and Otto A. Peterson, Defendants.

DECREE

Aug. 3, 1925.

LOWELL, J. This cause came on to be heard before this court at a stated term thereof, to wit, on or about the first day of July, 1924, upon the Bill of Complaint, the Answer of the original Defendant, George E. Belcher (since deceased), the Counterclaim of the said original Defendant, the Plaintiff's Answer thereto, and evidence submitted by the said parties at trial of said cause (on or about June 3, 1924) and arguments of counsel for the respective parties. Thereafter, to wit, on or about the twenty-seventh day of July, 1925, the defendant, J. Howard Leman, Administrator, having by order of this court been substituted as defendant in place of George E. Belcher, deceased, the George E. Belcher Company having upon petition of intervention and order of the court granting the same filed a Counterclaim or Bill in the nature of a Supplemental Bill of Revivor, and Otto A. Peterson having upon petition been allowed by order of this Court to intervene as a party Defendant, and the Plaintiff having thereafter filed Answers respectively to the said Bill of Revivor of George E. Belcher Company and to the Petition to Intervene of the said Otto A. Peterson, this cause came again before this court (on or about the twenty seventh day of July, 1925) upon Plaintiff's motion to set the cause down for trial upon the issues raised by the said Bill of Revivor, Petition and Answers thereto respectively, and upon motion by the said Leman, Administrator, the said George E. Belcher Company and the said Peterson to strike out the Plaintiff's said Answers; and this court, upon hearing counsel for the respective parties and upon

consideration thereof having denied the Plaintiff's motion to set the cause down for trial and having granted the motion by Leman, Administrator, George E. Belcher Company, and Otto A. Peterson to strike out the Plaintiff's said Answers to the said Bill of Revivor and Petition to Intervene; now therefore, it is

Ordered, adjudged and decreed

(I) That the Bill of Complaint herein filed by the Krentler-Arnold Hinge Last Company, Plaintiff, on Letters Patent of the United States to George A. Krentler, No. 842,319, dated January 29, 1907, and to Rudolph Carl, No. 969,244, dated September 6, 1910, be, and the same hereby is, dismissed.

(II) That the George E. Belcher Company is the owner of one-half interest in Letters Patent of the United States to Otto A. Peterson, No. 1,195,266 dated August 22, 1916; and that Otto A. Peterson is the owner of one-half interest in the said patent.

That J. Howard Leman, administrator of George E. Belcher deceased holds an exclusive license under the half interest of said Peterson Patent owned by said Otto A. Peterson.

That said Peterson Patent No. 1,195,266 is good and valid in law.

That the Krentler-Arnold Hinge Last Company, Plaintiff, did infringe upon said Peterson patent and the claims thereof, excepting claim 5.

That a writ of injunction issue out of and under the seal of this court, directed to the said Krentler-Arnold Hinge Last Company, perpetually enjoining it, its officers, attorneys, agents and employees and each of them from directly or indirectly making or causing to be made, using or causing to be used, selling or causing to be sold, lasts embodying or containing the invention covered by the claims excepting claim 5 of the said Peterson patent No. 1,195,266 or any substantial or material part thereof.

That the defendants Leman, Administrator, George E. Belcher Company, and Otto A. Peterson, as their several interests may appear, do recover from the Plaintiff the damages caused by said infringement of said Peterson patent, and also the profits accrued to the Plaintiff from and by reason of said infringement.

That an accounting be had to ascertain the amount of said damages and/or said profits and that for this purpose the cause be referred to as Master, to take, state, and return an account of the damages sustained by the said Defendants and/or the profits accrued to the said Plaintiff, by, or by reason of the said infringement of the Peterson patent.

(III) That the Defendants, as their several interests may appear, do recover of the plaintiff their costs, to be taxed.

By the Court

ARTHUR M. BROWN, Deputy Clerk.

Approved as to form

Solicitors and of Counsel for Plaintiff,
Krentler-Arnold Hinge Last Company.

Dated the day of August, 1925.

J. A. L.
D. J.

[Endorsed:]

No. 1853 Equity.

U. S. District Court District of Massachusetts.

Krentler-Arnold Hinge Last Company, Plaintiff

v.

J. Howard Leman, administrator C. T. A. of the estate of George E. Belcher, deceased, George E. Belcher Company, and Otto A. Peterson, Defendants.

Decree dismissing bill on letters patent Nos. 842319 and 969244 and for defendants on their counterclaim against plaintiff on letters patent No. 1195266 for an injunction and accounting

United States District Court Filed in Clerk's Office Mass. Dist. Aug. 3 1925

Roberts, Roberts & Cushman
31 Milk Street Boston, Mass.

COUNTER-CLAIMANTS' EXHIBIT 4.

United States District Court District of Massachusetts
In Equity 1853

Krentler-Arnold Hinge Last Company Plaintiff
v.
J. Howard Leman, Administrator of the Estate of George E. Belcher, Deceased, and George E. Belcher Company Defendants

U. S. Letters Patents Nos. 842,319, 969,244, and 1195266 by Counterclaim.

DECREE AFTER MANDATE
Nov. 17, 1926

LOWELL, J. This cause having heretofore come on to be heard and a decree having been filed and entered herein on August 3, 1925, said decree dismissing the Bill of Complaint charging infringement of Letters Patent No. 842,319 to George A. Krentler, and of Letters Patent No. 969,244 to Rudolph Karl, said decree also holding Letters Patent No. 1,195,266 to Otto A. Peterson to be good and valid and infringed, said Peterson patent having been set up by counterclaim of the defendant, from which decree the plaintiff took an appeal to the United States Circuit of Appeals for the First Circuit, and now the mandate of said United States Circuit Court of Appeals having been issued, received, and filed September 10, 1926; whereby it is

Ordered, adjudged, decreed that said prior decree as modified by the opinion of the Circuit Court of Appeals for the First Circuit, dated July 2, 1926 be affirmed; and it is further

Ordered, adjudged, decreed that the United States Letters Patent to Otto A. Peterson, No. 1,195,266, issued August 22, 1916 is good and valid in law, that said Otto A. Peterson was and is the original, first, and sole inventor of the invention set forth in said Letters Patent and more particularly in claims 1, 2, 3, 4, 6, and 7 thereof; that by reason of certain mesne assignments and agreements in writing, the said George E. Belcher Company is the sole owner of the entire right, title, and interest in, to, and under said

Letters Patent to Peterson, No. 1,195,266; that said Krentler Arnold Hinge Last Company has infringed claims 1, 2, 3, 4, 6, and 7 of said Peterson patent No. 1;195,266 without right or license from the George E. Belcher Company; it is further

Ordered, adjudged, and decreed that a permanent injunction issue out of and under the seal of this court, directed to the said Krentler-Arnold Hinge Last Company, perpetually enjoining it, its officers, attorneys, agents, and employees, and each of them, and all others acting by or for it or upon its behalf, from directly or indirectly making or causing to be made, using or causing to be used, selling or causing to be sold lasts embodying or containing the invention covered by claims 1, 2, 3, 4, 6, and 7 of the said Peterson patent No. 1,195,266 and any substantial or material part thereof, or any substantial equivalent or colorable imitation thereof; it is further

Ordered, adjudged, decreed that the defendants, George E. Belcher Company, and J. Howard Leman, administrator of the estate of George E. Belcher, deceased, as their several interests may appear in accordance with the opinion of the Circuit Court of Appeals for the First Circuit, do recover from the plaintiff the damages caused by said infringement of said Peterson patent and also the profits secured to the plaintiff from and by reason of the said infringement; and it is further

Ordered, adjudged, and decreed that an accounting be had to ascertain the amount of said damages and of said profits, and for this purpose the cause be referred to as Master to take, state, and return an account of the damages sustained by the said defendants and the profits accrued to the said plaintiff by reason of the said infringement of the Peterson patent; it is further

Ordered, adjudged, decreed that the defendants do recover from the plaintiff their costs to be taxed and that an execution issue therefor.

JAMES A. LOWELL

Judge U. S. District Court

Date: November 8, 1926.

Approved as to form:

James R. Hodder
Counsel for plaintiff.

Ellis Spear Jr.,
Counsel for defendants.

[Endorsed:]

No. 1853 Equity.
United States District Court District of Massachusetts
Krentler-Arnold Hinge Last Co. Plaintiff
v.
J. Howard Leman, Administrator of the Estate of George E. Belcher, Deceased, and George E. Beleher Company, Defendants
Decree after Mandate.
United States District Court
Filed in Clerk's Office Mass. Dist. Nov 17 1926
Ellis Spear, Jr. Counsellor at Law Patents & Trademarks Tremont Building Boston, Mass.
In Equity 1853
U. S. Letters Patent Nos. 842,319, 969,244, and 1,195,266 by Counterclaim.

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COUNTER-CLAIMANTS' EXHIBIT 5.

United States of America

[SEAL] Massachusetts, District, ss.

The President of the United States of America,

To the Krentler-Arnold Hinge Last Company, a corporation duly organized and existing under the laws of the State of Michigan, and having its principal place of business at Detroit, Michigan, your Agents and Servants, GREETING:

Whereas, J. Howard Leman, Administrator of the Estate of George E. Belcher, late of Stoughton, in the County of Norfolk, Mass., and George E. Belcher Company, a corporation of the laws of the State of Massachusetts, with a usual place of business in said Stoughton, have exhibited their Answer with Counter-Claim therein, filed Nov. 24, 1923, before the Judge of our District Court

of the United States, begun and holden at Boston, within and for the District of Massachusetts, on the second Tuesday of September, A. D. 1926, against you the said Krentler-Arnold Hinge Last Company, praying to be relieved touching the matters therein complained of, and whereas, by an order of said Court made on the seventeenth day of November, A. D. 1926, it was ordered that a Writ of Injunction issue under the Seal of the said Court, to restrain you and each and every of you, from doing all the matters and things hereinafter mentioned, as prayed for in said Answer with Counter-Claim therein.

We, therefore, in consideration thereof, Enjoin and Command you each, and every of you, that from and immediately after the receipt and notice of this our Writ, by you, or any of you, you your officers, attorneys, agents, and employees, and each of them, and all others acting by or for you or upon your behalf, shall not directly or indirectly make or cause to be made, use or cause to be used, sell or cause to be sold lasts embodying or containing the invention covered by Claims 1, 2, 3, 4, 6 and 7 of Letters Patent of the United States No. 1,195,266 issued August 22, 1916, to Otto A. Peterson, and any substantial or material part thereof, or any substantial equivalent or colorable imitation thereof.

Whereof you are not to fail or pain of ten thousand dollars, to be levied on your and each of your goods, chattels, lands and tenements, to our use.

Witness the Honorable JAMES M. MORTON, Jr., at Boston, this twenty-sixth day of November, in the year of our Lord one thousand nine hundred and twenty-six.

JOHN E. GILMAN, Jr.,
*Deputy Clerk.*

United States of America,
Massachusetts, District, ss.

I hereby certify that I have notified the within-named respondent

Service of a copy of this Injunction is acknowledged on behalf of the plaintiff, Krentler-Arnold Hinge Last Company, this 2nd day of December 1926. JAMES R. HODDER
Counsel for Krentler-Arnold Hinge Last Company.

[Endorsed:]
1853 Equity Equity No. 1853
Krentler-Arnold Hinge Last Company
v.
J. Howard Leman, Admr., et al.
Writ of injunction re Counter-Claim against Krentler-Arnold Hinge Last Company, Plaintiff.
United States District Court Filed in Clerk's Office Mass.
Dist Dec 2 1926
Ellis Spear, Jr. Attorney.

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District Court of the United States
District of Massachusetts.

I, James S. Allen, Clerk of the District Court of the United States for the District of Massachusetts, do hereby certify that the foregoing are true copies of the Decree dismissing bill on letters patent Nos. 969244 and 842319 etc., entered August 3 1925, Decree after mandate, entered November 17, 1926, and of the Writ of Injunction issued November 26, 1926, together with the Marshal's Return thereon, in the cause in said District Court entitled,

No. 1853 Equity,

Krentler-Arnold Hinge Last Company, plaintiff,

v.

J. Howard Leman, Admr., et al., Defendants,

determined in said District Court.

In testimony whereof, I hereunto set my hand and affix the seal of said Court, at Boston, in said District this seventeenth day of April, A. D. 1929.

JAMES S. ALLEN
Clerk.

[SEAL]

**COUNTER-CLAIMANTS' EXHIBIT No. 1 (On Petition).**

300 F. R. 834

Krentler-Arnold Hinge Last Co. v. Belcher.

(District Court, D. Massachusetts. July 24, 1924)

Lowell, District Judge.

This is a suit for the infringement of letters patent No. 842,319, granted to G. A. Krentler on January 29, 1907, and letters patent No. 969,244, granted to Rudolph Carl on September 6, 1919, relating to lasts used in the manufacture of shoes. The defendant denies that he infringes the Krentler patent, alleges that the Carl patent is void, and sets up by way of counterclaim that the plaintiff infringes letters patent No. 1,195,266, granted to Otto A. Peterson on August 22, 1916, one-half interest in which is owned by him.

The defendant had for many years been a licensee of the plaintiff under a license covering many patents, which was granted first in 1902. The license was canceled in 1913, and a second one issued, which enumerated, among many other patents, the Krentler patent. It did not include the Carl patent, though that patent then belonged to the plaintiff, and no specific license was ever granted the defendant under the Carl patent. In 1919 the defendant canceled the license, but by arrangement with the plaintiff continued to make lasts covered by some of the plaintiff's patents, and to buy parts, which the plaintiff sold to the defendant; this being its method of collecting royalties for the use of the invention. One of the clauses in the license provided that a licensee could not question the validity of any of the patents mentioned in the license. After canceling the license, the defendant made lasts which he contended were covered by the Peterson patent, owned by him.

A preliminary motion of the defendant was that the bill of complaint should be dismissed as to the Krentler patent, as it had expired, and no injunctive relief could be granted under it. This motion was denied, the court at that stage of the case not being satisfied that the defendant had not estopped himself by being a

licensee under the patent. The motion might well have been granted, but, in the view which the court takes of the Krentler patent, no right of the defendant was affected by the denial of the motion.

The first contention of the plaintiff is that the defendant is estopped to deny the validity of either the Krentler or the Carl patent, because he had been a licensee, enjoying the benefits of the invention covered by the patents, for many years. This contention is unsound as to the Carl patent which was never mentioned in any license, and therefore not affected by the clause of the license above described. As to the Krentler patent, the defendant contends that he is not estopped to deny its validity after having canceled the license, as he never made use of the invention covered by the patent, either before or after the cancellation of the license, but only of certain other patents covered by it. The facts in the case support the contention of the defendant; for the reasons hereinafter given, I am of the opinion that the defendant's lasts do not infringe the Krentler patent.

(1) The next contention of the plaintiff is that the defendant's lasts, Plaintiff's Exhibits 3 and 4, which are stipulated by the defendant to be lasts as made by him, infringe the Krentler patent. That patent, however, is, in my opinion, a very limited one. The patents in suit all relate to lasts on which shoes are made, and more particularly to lasts called "hinged" lasts. Shoes were formerly made only on solid lasts, which were objectionable because, after the shoe had been made, it was difficult to withdraw the last from the shoe without damaging the upper. Some years ago various kinds of hinged lasts were devised, the purpose of which was to enable the lasts to be withdrawn from the shoe by moving the heel part of the last forward toward the fore part, and thereby decreasing its length, so that it could be withdrawn from the shoe without stretching the upper. Various kinds of hinged lasts were known in the prior art; one which had been well known for some time, and was covered by a patent now expired, had a so-called "knuckle" joint. This was a last with a projection on the heel part or the fore part, which fitted into a

corresponding socket in the other part. The knuckle was made in a circular form and adapted to turn in a corresponding circular recess. One objection to this form of last was that it would not withstand the strain to which it was subjected in the manufacture of shoes, but would bend or buckle before the shoe was completed. Various expedients were adopted to remedy this defect. The specific expedient adopted by the plaintiff in the patent in suit was the forming of a protuberance or "angular surface" on the periphery of the circular knuckle joint, which would engage with the socket and make it more difficult to turn the shoe from its extended or collapsed position, or vice versa. In the Krentler patent in suit the following disclaimer is contained:

> "In the present case I limit my claims to the species of contacting last faces having a co-operating angular surface for securing the desired locking effects. . . ."

The claims, three in number, all mention the rigid angular or wedging surface. Great stress is laid on the expression contained in claims 1 and 2, that the last is "constructed to maintain the parts at rest when the last is collapsed, and to offer increasing resistance in moving away from collapsed position" (claim 1), and "being constructed to offer increasing resistance to moving away from the lengthened position" (claim 2). The plaintiff strenuously contends that any method of providing increased resistance is covered by the claims, and points out the fact that the patentee makes the following statement in a part of his patent before the disclaimer which I have already quoted. The statement is as follows:

> "The principle upon which the locking device operates is the crowding or wedging of one part past another when the heel part is turned on its pivot, and I intend to claim the same herein broadly."

I am of the opinion that this expression does not aid the plaintiff. Whatever may have been his intention, he included the disclaimer and referred in each claim to the "rigid angular or wedging surface" (first claim), "angular or wedging surface"

(second claim). There is no such angular surface in the Exhibits 3 and 4, and therefore, in my opinion, the defendant's lasts do not infringe the Krentler patent.

(2) The first claim of the Carl patent, the only one relied on by the plaintiff, is for a last having the knuckle joint, a part of which is made not by sawing or cutting the wood in any way, but by breaking it. In my opinion this claim is void for lack of patentability. The knuckle feature was old. The method of making it by breaking part of it, instead of sawing it, was merely a shop expedient, and there was the evidence of several witnesses that similar things had been done many years ago in connection with lasts. It is true that the lasts which the witnesses testified about as being partly sawed and partly broken were not of the knuckle joint type, but in my opinion there is no invention in adapting a well-known expedient in the making of lasts to a specific form of last in connection with which it had not been used. The plaintiff lays stress on the shoulder shown in the Carl patent, which it says performed the important function of keeping the two parts of the last in alignment under pressure. The feature is not specified in the claim, and, in view of the more specific character of some of the other claims, is, in my opinion, not covered by it, as claim 1 was evidently intended to be a very broad claim, including any knuckle joint formed partly by sawing and cutting and partly by breaking. However, if the claim could properly be construed as covering a shoulder, I am of the opinion that this would not assist the plaintiff, as such shoulders were well known in the prior art.

(3) This disposes of the plaintiff's claim for infringement. There remains the question of the counterclaim. The defendant is the part owner of the Peterson patent. In that patent the function of holding the last rigidly in either its lengthened or collapsed position is brought about by the use of the horseshoe link connecting the two parts of the last. The link is of steel, but has a slight compressibility. It is so attached to the two parts of the last that, when the last is in its lengthened position, ready to be used in the manufacture of shoes, the two ends of the

horseshoe link are placed a slight distance further apart than their normal position would be, so that the resiliency of the link under this strain operates to keep the two parts of the last together. The last can be flexed or broken by the use of force in bending it, which results in pulling the ends of the horseshoe links still further apart, past a center, when the two ends of the horseshoe link tend to come together and hold the parts of the last firmly in the collapsed position. The link in this position also is subject to some strain.

The plaintiff contends on this branch of the case, where he is practically a defendant, that he does not infringe for two reasons. In the first place, his last, Defendant's Exhibit C, stipulated to be a correct copy of the lasts made by the plaintiff's licensees, contains a knuckle joint, and the Peterson patent does not show such a joint. In the second place, he contends that his last is covered by another Krentler patent (W. A. Krentler this time), No. 1,459,061, showing the construction which he uses. As to the first contention it is not, in my opinion, well taken. The knuckle joint was shown in the prior patent, which has elapsed, and this feature could freely be used by anyone.

The second point raises a very interesting question. The second Krentler patent shows a rigid link in connection with two springs. The Krentler Company contends that its patent is valid and affords it protection. In the first place, it is to be noted that the Krentler Company does not in practice use the two springs shown in its patent, but only one spring, which is much stronger than either of the two springs as shown in the patent, and is very much like the Peterson horseshoe hinge in form. It was in evidence that, at the time when Belcher canceled the license, there was considerable correspondence between the parties and their attorneys. At that time the attorney for the Krentler Company requested Belcher to assign to it the Peterson patent. This, however, was not done. After that the Krentler patent, No. 1,459,061, was used. Belcher contends that this was got up by a very clever person, thoroughly familiar with the last-making art, in order to have some kind of a patent to meet the Peterson patent. The

facts in the case, especially the one already mentioned, that in practice the Krentler Company uses one spring, instead of two, a heavier spring and one similar in shape to the Peterson horseshoe wedge, lends force to this contention.

The Krentler Company, however, strenuously contends that the Peterson patent is limited to a construction where only one member is used, as the expression throughout that patent is "a member", and there is no suggestion in the patent that a link and spring could be used instead of the horseshoe spring wedge of the Peterson patent. The question is a difficult one. It appears from the evidence of the prior art that Peterson invented an ingenious device whereby all the required functions of a hinged last could be furnished with the minimum of expense and the smallest number of parts. He provides for rigidity in the extended and collapsed position, and also for the feature of being able to break the last and withdraw it from the shoe. This he does by the use of a horseshoe link, merely one member. It seems to me that the Peterson patent is one of considerable merit and should be broadly construed. While I am not prepared to say that it would cover any arrangement of a link and a spring, it is my opinion that it does cover the construction used by the Krentler Company. It is not necessary to decide on the validity of the Krentler patent, No. 1,459,061, because, as I have already said, the Krentler patent does not follow the construction shown in the patent.

The Krentler Company earnestly contends that as in the prior art there was a patent to Clausing, No. 1,085,668, which showed a link and a spring, it has the right to use a link and a spring without running the danger of an infringement of the Peterson patent. This contention is, I think, unsound. The function of the spring in the Clausing patent, No. 1,085,668, was quite different from the horseshoe wedge of Peterson or the spring of the second Krentler patent. Belcher contends that the Krentler Company used a link in connection with a spring only as a subterfuge in order to get around the Peterson patent, and also that the function of holding the last rigidly in its extended position and allowing its breaking by the use of considerable force is performed in

the Krentler device by the spring, and that the link has no function. This is an exaggeration, but it seems to me that the important part of the device is the spring, and not the link. I am of opinion, therefore, that the Krentler last as used with one strong U-shaped spring, although used in connection with a link, is an infringement of the Peterson patent. The defendant's contention that, because the word "yieldingly" is used in the Peterson patent, that patent does not cover a device which is rigid enough to withstand the strains encountered in making shoes requires merely the statement of it to show its absurdity.

The Krentler Company refers to various decisions on many of their patents. The only case where the patent in suit is involved is that mentioned on page 9 of their brief. They apparently lay great stress on this case, as they print a copy of it at the end of the brief. On examination it appears that the defendant in the case consented to the decree. The fact is, that this patent in suit was decided to be "a good and valid patent", not by Hon. Julius M. Mayer of the United States District Court for the Southern District of New York, but by the New York Last Company, which was the defendant in the case and agreed to the final decree.

The Krentler Company also lays stress on the file wrapper of the Peterson patent and on the arguments of Mr. Smith, the patent solicitor, in the course of proceedings before the Patent Office. In the course of these proceedings, however, there was no withdrawal of any claim, and no estoppel can arise for that reason. I am very doubtful whether as a matter of law it is proper to consider the scope of a claim merely on account of what a patent solicitor said to the examiner. However that may be, I find nothing in the file wrapper which would estop Peterson from claiming that the defendant's device was an infringement. It is true that he had in mind only one member, and the peculiar advantage of his device lies in that very fact, that he could accomplish the desired result as well, or better, by using one member as had been done in the prior art by using two or more. I do not think the fact that he had in mind merely one member prevents him from saying that

his device cannot be legally imitated by using two members and thereby producing a device which will work, but the most important features of which are brought about the use of a heavy spring suspiciously like the spring wedge of Peterson.

The prayers of the plaintiff are refused. The prayer in the counter-claim is granted. A decree may be entered, dismissing the bill against the defendant and allowing the defendant's counter-claim as valid, and the Peterson patent as infringed by the plaintiff.

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**COUNTER-CLAIMANTS' EXHIBIT No. 3 (on Petition).**

13 F. R. (2nd) 796

Krentler-Arnold Hinge Last Co. v. Leman et al.

(Circuit Court of Appeals, First Circuit July 2, 1926)

Bingham, Circuit Judge.

(1) The first question presented by the appellant (the Krentler Company) is that Belcher, the original defendant could not in his answer set up and maintain a counterclaim for the infringement of a patent owned by him; that under federal equity rule 30, as construed by the District Courts in this circuit, a subject-matter not arising out of the cause of complaint stated in the bill could not be set up by way of counterclaim. In support of this contention reliance is placed upon the causes of *Terry Steam Turbine Co.* v. *B. F. Sturtevant Co.* (D. C.) 204 F. 103, *Colman* v. *American Warp Drawing Machine Co.* (D. C.) 235 F. 531, and *Klauder-Weldon Dyeing Co.* v. *Giles* (D. C.) 212 F. 462. It is true that these cases so hold, but since they were decided rule 30 has been construed by the Supreme Court to be of much broader scope, and to entitle a defendant to avail himself, by way of counterclaim, of matter which might be the subject of an independent suit in equity. *American Mills Co.* v. *American Surety Co.*, 260 U. S. 360, 43 S. Ct. 149, 67 L. Ed. 306. It was there said:

> "That which grows out of the subject matter of the bill must be set up (by counterclaim) in the interest of an end of litigation. That which does not may be set up, if the defendant wishes, in one proceeding in equity quickly to settle all

equitable issues capable of trial between them in such a proceeding, even though they are not related. *Buffalo Specialty Co.* v. *Vancleet* (D. C.) 217 F. 91. The formality of cross-bills is not required, and the rule goes as far as possible to facilitate the prompt disposition of equitable controversies between the same litigants. The rule should be liberally construed to carry out its evident purpose of shortening litigation, but the limitation of counterclaims to those which are equitable is imperative."

See also *Wire Wheel Corp. of America* v. *Budd Wheel Co.* (C. C. A.) 288 F. 308 (4th Cir.), *Cooling Tower Co. Inc.* v. *C. F. Braun* (C. C. A.) 1 F. (2d) 178 (9th Cir.), and *Le Sueur* v. *Manufacturers' Finance Co.* (C. C. A.) 285 F. 499, 495 (6th Cir.).

(2) The second contention is that the District Court was without jurisdiction to entertain the counterclaim, on the ground that it was not an inhabitant of the district of Massachusetts and had no regular and established place of business in the district, as required in section 48 of the Judicial Code (Comp. St. 1030).

In the District Courts in this circuit, where it had been held that, under rule 30, a defendant in any equity proceeding can counterclaim only for matter arising out of the transaction complained of in the plaintiff's bill, it has also been held that a plaintiff, by bringing his bill in a federal district other than that of which he is an inhabitant or has a regular and established place of business, does not, by so doing, consent to being sued in such district upon an equitable counterclaim, unless the matter set up therein arises out of the transaction complained of in the plaintiffs' bill. *Colman* v. *American Warp Drawing Machine Co.* (D. C.) 235 F. 535 (D. C. Mass.); *Parker Pen Co.* v. *Rex Mfg. Co.*, 11 F. (2d) 533 (D. C. R. I.). The chief reason assigned for this holding seems to be that if a plaintiff, by bringing his bill in a district other than the one in which he resides or has a place of business, should be held to have consented to being sued there on a counterclaim unrelated to the plaintiff's cause of action, it would be to enlarge by rule the jurisdiction of the court, and that such a thing cannot be done.

The defect in this argument seems to us to be that it assumes that the statutory jurisdiction of the court is thus enlarged by a rule of court. This plainly is not so. A person who is not an inhabitant of, or does not have a regular and established place of business in, a given federal district, may by his consent, express or implied, be sued in a patent cause in such district. *Postage Meter Co.* v. *Standard Mailing Machine Co.* (C. C. A.) 9 F. (2d) 19. And if, by bringing a suit in equity in such district, he may be held to have consented to be sued there on a counterclaim setting up matter arising out of the same transaction (as appears to be conceded), there seems little reason, since the promulgation of equity rule 30, for not holding that by so doing he likewise consents to being sued on a counterclaim based upon an independent and unrelated matter, and such is the holding in many Circuit Court of Appeals and District Courts. *United States Expansion Bolt Co.* v. *Kroncke Hardware Co.*, 234 F. 868, 870, 148 C. C. A. 466 (7th Cir.); Id. (in court below) 216 F. 186; *Victor Talking Mach. Co.* v. *Brunswick-Balke-Collender Co.* (D. C.) 279 F. 758; *Champion Spark Plug Co.* v. *Champion Ignition Co.* (D. C.) 247 F. 200.

(3) Furthermore, we are of the opinion that the appellant "the Krentler Company" cannot question the power of the court in the Massachusetts district to entertain the counterclaim and submitted to a trial and decision of the case upon its merits. The matter involved in the counterclaim being a patent suit, the District Court, as a federal court, had general jurisdiction of the subject matter, and the appellant, by appearing generally, filing an answer, going to trial, and submitting to a decision on the merits, waived the privilege which it now seeks to assert, if it had not otherwise done so. *Postage Meter Co.* v. *Standard Mailing Co. supra* (1st Cir.); *Cooling Tower Co.* v. *C. F. Braun Co.* (C. C. A.) 1 F. (2d) 178, 179 (9th Cir.). In fact, it failed to take any action seeking to raise this question until February 18, 1925, some seven or eight months after the trial and decision on the merits of the case. Such being the situation, we think there can be no question but that the appellant should be held to have waived its right, if any, to

object to being sued in the Massachusetts district by way of counterclaim on the Peterson patent.

(4) The third contention is that the counterclaim abated before the trial in June, 1924, and consequently there never has been a trial on the counterclaim. In support of this contention the appellant relies upon the matter set out in its suggestion of abatement filed February 12, 1925, to the effect that a corporation by the name of the George E. Belcher Company was organized under the laws of Massachusetts, with which Belcher made the contract of April 1, 1924, heretofore set out, wherein he assigned to the corporation the assets of the business theretofore conducted by him, including patents used by him in his business, in consideration of the issue to him of 4,997 shares of the 5,000 authorized shares of common stock of the corporation; that the Peterson patent, set up in the Belcher counterclaim, was a patent used by him in his business, and constituted one of the principal features of his business.

It appears that, at the time Belcher filed his answer, November 24, 1923, setting up the counterclaim, he was the owner of one-half of the Peterson patent, and held an exclusive right and license from Peterson, "to make, use, and sell, or cause to be made and sold," the invention under the other half for the full term of the patent, and that it was agreed between the parties thereto that the license and all rights therein and thereunder should be binding upon their "heirs, executors, administrators, and assigns, and legal representatives."

In view of these facts, the question arises as to what was Belcher's title to the Peterson patent when he brought his counterclaim, and on April 1, 1924, when he made the agreement with the Belcher Company—that is, whether as a matter of law, he was the owner of the entire title to the Peterson patent, or only owned a half of it, and was licensee under the other half.

In *Waterman* v. *Mackenzie*, 138 U. S. 252, 255, 11 S. Ct. 334, 34 L. Ed. 923, the court, in considering a similar question, held that an assignment or transfer of an undivided part of the exclusive right to make, use and vend throughout the United States a

patented invention vested in the assignee title to so much of the patent itself, with a right to sue infringers; that the patentee assignor was to be joined as a party, where he retained title to the other share of the patent, that, where the transfer amounted to a license only, the title remained in the owner of the patent, and suit must be brought in his name, and never in the name of the licensee alone, unless that was necessary to prevent an absolute failure of justice, as where the patentee was the infringer and could not sue himself. It was there said:

"Every patent issued under the laws of the United States for an invention or discovery contains 'a grant to the patentee, his heirs and assigns, for the term of 17 years, of the exclusive right to make, use and vend the invention or discovery throughout the United States and the territories thereof'. Rev. Stat. 4884 (Comp. St. 9428). The monopoly thus granted is one entire thing, and cannot be divided into parts, except as authorized by those laws. The patentee or his assigns may, by instrument in writing, assign, grant and convey, either, first, the whole patent, comprising the exclusive right to make, use and vend the invention throughout the United States; or, second, an undivided part or share of that exclusive right; or, third, the exclusive right under the patent within and throughout a specified part of the United States. Rev. Stat. 4898 (Comp. St. 9444). A transfer of either of these three kinds of interest is an assignment, properly speaking, and vests in the assignee a title in so much of the patent itself, with a right to sue infringers—in the second case, jointly with the assignor; in the first and third cases, in the name of the assignee alone. Any assignment or transfer, short of one of these, is a mere license, giving the licensee no title in the patent, and no right to sue at law in his own name for an infringement."

See, also, *Union Switch & Signal Co.* v. *Johnson Railroad Signal Co.*, 61 F. 940, 10 C. C. A. 176; *Chauche* v. *Pare*, 75 F. 283, 21

C. C. A. 329; *Paulus* v. *MM. Buck Mfg Co.*, 129 F. 594, 64 C. C. A. 162.

(5) As the instrument purporting to be a license was a grant to Belcher, his heirs and assigns, of the exclusive right, under one-half of the Peterson patent, to make, use, and vend the invention throughout the United States for the entire term of the patent, it transferred and vested in Belcher the title to that half, and, being the owner of the other half, Belcher was at the time of the filing of his counterclaim and the making of the agreement of April 1, 1924, the owner of the entire title to the patent. This being so, we think the legal effect of the instrument of April 1, 1924, construed in the light of the surrounding circumstances, was to transfer the entire title in the Peterson patent from Belcher to the Belcher Company, but that there still remained in Belcher the right to maintain an action to recover profits made by the Krentler Company and damages suffered by him by reason of the infringement of the Peterson patent down to the time of the sale and transfer to the Belcher Company, and that the instrument of April 1, 1924, cannot reasonably be construed as transferring to the Belcher Company the right to such profits and damages. As Belcher, at the time he brought his counter-claim, had the legal title to the patent and a right to all the profits and damages that might have arisen or accrued from past infringement, and to equitable relief against further infringement, the counterclaim was a proper equitable counterclaim of which the court had jurisdiction in equity, and, having taken jurisdiction in equity, it did not thereafter lose it on April 1, 1924, did not pass the right to damages and profits for past infringement, it did not operate to abate or suspend the counterclaim, and the court had jurisdiction of the cause at the time of the trial and decision of the merits of the case.

(6) After the decision was handed down on July 24, 1924, Belcher died, and Leman, having been appointed administrator was substituted for Belcher and the suit revived. Thereafter, on December 11, 1924, Leman, administrator, executed and delivered to the Belcher Company the deed of assignment heretofore

set out. The deed purported to be an assignment of the one-half interest in the Peterson patent which Peterson had assigned to Belcher March 2, 1915, and therein, in addition to assigning or purporting to assign said one-half interest, Leman further assigned to the Belcher Company all which he, as administrator, had against any and all persons, firms and corporations, or associations, at law or in equity, by reason of past infringements of the "rights conveyed" under said Peterson patent.

It is evident that this instrument did not operate to pass title to this half of the Peterson patent, as it had been previously transferred by Belcher April 1, 1924. It did, however, assign damages and profits due to past infringements of the one-half interest attempted to be conveyed, and it would seem that, under the assignment, all damages which Belcher sustained in his business in the operation of the patent due to past infringements would pass to the Belcher Company under the assignment; for, whether Belcher had operated his business under the one-half interest in the Peterson patent, which the Leman assignment purported to transfer, or under his complete title to the patent, the damages suffered by him would be the damages to his business. But, as the assignment of December 11, 1924, limited the profits to those due to past infringements of "the rights conveyed" thereby, it seems to us that only such profits passed as appertained to that one-half interest.

This being so, the counterclaim suit, as related to the profits that accrued prior to April 1, 1924, pertaining to Belcher's one-half interest under the so called exclusive license, was not suspended by the assignment of Leman of December 11, 1924, for such part of the profits did not pass to the Belcher Company, but it was suspended as to the right to damages and to the balance of the profits. As Leman and the Belcher Company were the parties in interest under the counterclaim as to the profits, and the company as to the damages, accruing and arising prior to April 1, 1924, the court below did not err in allowing the Belcher Company to intervene as a party counterclaimant and permitting the counterclaim to be revived as to it; nor did it err in holding that, as the

Belcher Company had become the owner of the Peterson patent, it was entitled to equitable relief. *Denaro* v. *McClaren Products Co.* (C. C. A.) 9 F. (2d) 328.

We are, however, of the opinion that it erred in allowing the intervention of Peterson as a counterclaimant, as he had no title to the patent, and no interest in the damages or profits.

As the parties have argued the case upon the merits, and we regard the record as sufficient to authorize a disposition of the case, we have undertaken to do so under the authority vested in us under section 129 of the Judicial Code.

The two patents involved in the Krentler Company's bill of complaint are the Krentler patent, No. 842,319, and the Carl patent, No. 969,244. They both relate to lasts used in the manufacture of shoes. The court below did not pass upon the validity of the Krentler patent, but held that it was not infringed by the defendant Belcher. The Carl patent was held invalid for want of invention.

(7) In the Krentler patent, the patentee states that his invention relates to hinged or divided lasts, and more particularly to the provision for locking or holding the last against movement into broken position; that a last in use has a strong tendency to move into an intermediate or broken position, and that his invention relates to means for preventing this movement; that "said means consists in providing an angular projection or wedging surface c' on one part of the last herein shown as on the rear end or secant face of the fore part, and a dwell or co-operating surface on the other part, herein shown as on the front end or secant face of the heel part, so that, when said two co-operating surfaces slide on each other in moving toward said intermediate position, they will offer increasing resistance, and will tend to hold the last parts rigidly in lengthened or shortened position"; that "the wedging surface or protuberance c' is secured by providing a bulge or enlargement on the knuckle c, slightly eccentric to the pivot pin f, on which the heel part turns, said heel part being sawed to fit said wedging surface c'."

Further he says: "If the wedging or moving part were made

concentric with the pivot pin f, there would be no point of special resistance; but by making it eccentric or providing it with a corner or obtuse angularity it co-operates with the opposing resisting surface to lock the last in operative position."

It was old to provide in a hinged last a knuckle joint, the contacting surfaces of which represented the circumference of a circle having the pivot pin f for its center. And because of this the patentee in the Krentler specification limits his "claims to the species contacting last faces having co-operating angular surfaces for securing the desired locking effects."

The broad claims of the patent are claims 1, 2 and read as follows:

"1. A divided last, and a union movably connecting the parts of the last, one of said last parts having a rigid angular or wedging surface, and the other of said last parts having a co-operating rigid resisting surface, and constructed to maintain the parts at rest when the last is collapsed and to offer increasing resistance in moving away from collapsed position.

"2. A divided last, having adjacent contacting secant faces, and a union movably connecting the parts, a portion of one of said faces consisting of an angular or wedging surface, and a portion of the other of said faces consisting of a co-operating resisting-surface, said surfaces having a position of rest for automatically holding the last lengthened and being constructed to offer increasing resistance to moving away from lengthened position."

The angular wedging surface spoken of in the claims is "the angular projection or wedging surface c'," or the "wedging surfaces or protuberance c'" spoken of in the specification, and is secured by "providing a bulge or enlargement in the knuckle c slightly eccentric to the pivot pin f." And as in his specification the patentee limits his claims "to the species of contacting last faces having co-operating angular surfaces for securing the desired locking effects," we do not think the District Court erred in holding that the claims of the patent were limited to a knuckle pro-

vided with a bulge or enlargement upon it slightly eccentric of the pivot pin, and that, so construed, the defendant's alleged infringing device (Plaintiff's Exhibits 3 and 4) do not infringe, as the knuckle joint employed does not contain or embrace the rigid angular or wedging surfaces that constitute the alleged inventive feature of the Krentler patent, but employs a knuckle joint, the surfaces of which at all points are concentric with the pivot pin f, a feature of the prior art. The increasing resistance feature, which counsel for the Krentler Company claim is the broad feature of the Krentler patent, was present in lasts provided with the old circular knuckle, and unless the eccentric feature constituting the "bulge or enlargement of the knuckle c" constitutes the invention of the Krentler patent, it is invalid. It is evident that the claims are not entitled to the broad construction claimed for them.

(8) In the Carl patent, the Krentler Company relies upon claim 1, which reads:

> "1. A last comprising front and rear pivotally connected sections, one of said sections having a circular knuckle and the other a circular socket which receives said knuckle, said sections being constructed from a single block and the joint between said sections comprising a part which is cut and another part is broken."

The circular knuckle feature, as above stated, was old. In making the device of the Carl patent, the greater part of the circular divisional line forming its knuckle was cut; the balance of it, varying from one-eighth to one-fourth of an inch, was broken. The court below found, and we think correctly, that the method of making by breaking part of the divisional line, instead of sawing it, was a shop expedient, which had been practiced many years before in connection with the making of lasts, and that there was no invention in adopting such well-known expedient, whether it had been previously employed in making lasts, where the divisional line between the parts consisted in part of a line in the form of a true circle, or departed therefrom.

If the inventive feature of the Carl patent resided in the circular

knuckle joint in combination with a shoulder, such combination was not new, for it is shown in the earlier patent to Holbrook No. 907,693, issued December 22, 1908. We do not think that the fact that an eighth to a quarter of an inch is formed by breaking rather than sawing is involved invention, or that the court erred in finding that the Carl patent, as to claim 1, did not involve invention.

(9) We regard the Peterson patent for a hinged last with its connecting horseshoe link and resilient spring in a single element, as valid and infringed. It was patentable over the Clausing patent, No. 1,085,668, not simply because it embodied a link and spring in a single element, while in the Clausing patent they were separate, but because it was so constructed that it functioned to hold the last firmly when in its collapsed as well as its extended position; the spring of the Clausing patent functioning to hold the last members firmly only when in their extended position. Although the link and spring of the plaintiff's alleged infringing device may, as the number of elements involved, more nearly resemble Clausing, nevertheless in its functioning and mode of operation it resembles the Peterson patent, for the connecting spring and the link not only hold the last members in proper relation, but hold them firmly in both their extended and in their collapsed positions, as does the Peterson device. The plaintiff, by separating the Peterson device into two elements, does not escape infringement.

The decree of the District Court is modified, to conform to this opinion, and, as modified, is affirmed, with costs to the appellees.

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**COUNTER-CLAIMANTS' EXHIBIT 6.**

24 F. R. (2nd) 423

Krentler-Arnold Hinge Last Co. v. Leman et al.

District Court, D. Massachusetts. February 14, 1928.

Lowell, District Judge.

This case related to patents for hinged lasts. It was begun by the Krentler Company, which brought suit on September 12, 1923,

against George E. Belcher, doing business as the Belcher Company, for infringement of patent No. 842,319, granted to George A. Krentler on January 29, 1907, which was then about to expire, and on patent No. 969,244, granted on September 6, 1910 to Rudolph Carl. The Belcher Company denied infringement, and set up a counterclaim on the patent to O. A. Peterson, No. 1,195,266 of August 22, 1916. The Krentler Company depended on its later patent to W. A. Krentler, No. 1,459,061, granted June 19, 1923, as a defense to this counter suit. The District Court (300 F. 834) decided that the first Krentler patent was not infringed and that the only claim of the Carl patent which was relied on (claim 1) was invalid. It further held that the Krentler Company had infringed the Peterson patent and that the second Krentler patent was not a defense to the infringement. This opinion was handed down in July, 1924. Shortly thereafter Belcher died, and the Krentler Company interposed many technical objections to the title of the Belcher Company, which had succeeded to the rights of Belcher. The interlocutory decree was entered in August, 1925. On appeal the Circuit Court of Appeals (13 F. R. (2nd) 796) sustained the District Court on all points except the minor one of allowing Peterson himself to be made a party to the case.

After the decision in the Circuit Court of Appeals the case was sent to Arthur P. Hardy, Esq., as master, to report the damages, and profits. His report was filed on December 14, 1927. It appeared in evidence before him that the Krentler Company had kept on infringing till November, 1925. The testimony before the District Court showed that the Krentler Company tried to buy the Peterson patent, and, being unsuccessful, got out the second Krentler patent devices which the Belcher Company claimed were in infringement of the Peterson patent.

The present proceeding relates to exceptions to the master's report. The master found that the Krentler Company had made profits of $10,368.30. He then proceeded to assess damages, and, as no items of damage could be proved, he made use of the "reasonable royalty" rule, and determined that the damages amounted

to $6,921.43. The Belcher Company asked the master to allow proof of its expenses of litigation, which he refused to do.

(1) The master rendered a very careful and clearly expressed report. Though I am of opinion that he erred in allowing damages, as well as profits, the case can be settled without the necessity of sending it back to him. The Krentler Company took ten exceptions to the report, only three of which need be mentioned. It excepted to the master's refusal to allow certain overhead expenses to be deducted from the profits which the master found to be the result of sales of infringing devices. On this point the master correctly rules that the burden was on the Krentler Company to prove that these expenses were made necessary by the extra cost of producing the infringing devices, or at least to show specifically what portion of them was due to the infringement. *Westinghouse Co.* v. *Wagner Co.*, 225 U. S. 604, 32 S. Ct. 691, 56 L. Ed. 1222, 41 L. R. A. (N. S.) 653.

(2). The master held that this burden had not been sustained, and on this point also I agree with him. The Krentler Company also excepted to the ruling of the master that damages as well as profits should be allowed to the Belcher Company. In my opinion this exception is well taken. The profits of the Krentler Company were proved. There were no facts from which damages could be proved, and the master resorted to the reasonable royalty rule. In this respect he was in error. The rule of law allowing damages to be assessed under the guise of a reasonable royalty arose in cases where the evidence showed that damage had been sustained, but there were no sufficient facts from which to ascertain actual damages.

The leading case on the subject is *United States Frumentum Co.* v. *Lauhoff*, 216 F. 610, in which Judge Denison in 1914 in a learned and able opinion delivered the decision of the Circuit Court of Appeals for the Sixth Circuit. The judge characterizes this kind of proof as the determination of "general damages." 216 F. at page 617.

The material part of the statute governing the case at bar (sec-

tion 70 of title 35 of the U. S. Code (35 U. S. C. A. 70; Comp. St. 9467)) is as follows:

"The several courts vested with jurisdiction of cases arising under the patent laws shall have power to grant injunction according to the course, and principles of courts of equity, to prevent the violation of any right secured by patent, on such terms as the court may deem reasonable; and upon a decree being rendered in any such case for an infringement the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained thereby, and the court shall assess the same or cause the same to be assessed under its direction. (If on the proofs it shall appear that the complainant has suffered damage from the infringement or that the defendant has realized profits therefrom to which the complainant is justly entitled, but that such damages or profits are not susceptible of calculation and determination with reasonable certainty, the court may, on evidence tending to establish the same, in its discretion receive opinion or expert testimony, which is hereby declared to be competent and admissible, subject to the general rules of evidence applicable to this character of testimony; and upon such evidence and all other evidence in the record the court may adjudge and decree the payment by the defendant to the complainant of a reasonable sum as profits or general damages, for the infringement.) The court shall have the same power to increase such damages, in its discretion, as is given to increase the damages found by verdicts in actions in the nature of actions of trespass upon the case."

The part of the statute included in brackets was added by the Act of February 18, 1922 (42 Stat. 392). It will be noticed that in the last line of the excerpt above printed the words "general damages" are used. This seems to indicate that the parliamentary draftsman had Judge Denison's opinion on mind.

By the terms of the statute general damages can be awarded only when neither profits nor damages can be proved.

(3) The finding of the master as to profits is confirmed. His finding as to damages is overruled. As the only recovery left is for profits, interest runs from the filing of the master's report. Walker, Patents (5th Ed.) 736.

The Krentler Company's exception to the award by the master of interest from the date of the Belcher Company's counter-claim is sustained.

(4) The Belcher Company insists that it should have been allowed to show its litigation expenses, so that the court might increase the award to allow them. The court in appropriate cases is allowed to treble the amount of damages or profits, so that the party whose patent has been infringed shall not suffer loss. Such an increase is sometimes spoken of as punitive damages, but, as Judge Brewster has so convincingly shown, this is inaccurate. *Beacon Folding Machine Co.* v. *Rotary Machine Co.* (D. C.) 17 F. (2nd) 934.

The present case is one where damages should be increased. The Krentler Company has willfully infringed the Peterson patent. It copied the Peterson patent in the first place; then it interposed a series of technical objections to the Belcher Company's title, and it continued the infringement for more than a year after the opinion of the District Court was handed down. *National Folding Box & Paper Co.* v. *Robertson's Estate* (C. C.) 125 F. 524; *Fox* v. *Knickerbocker Engraving Co.* (C. C. A.) 165 F. 442; *K. W. Ignition Co.* v. *Temco Electric Motor Co.* (C. C. A.) 283 F. 873; *Motor Player Corp.* v. *Piano Motors Corp.* (D. C.) 19 F. (2d) 993.

The Belcher Company asked the master to allow it to prove the expenses involved in the litigation. This the master refused to do. In my opinion this should have been allowed, but at the recent hearing before me it was agreed that the Belcher Company should file an itemized account of its expenses, to which the Krentler Company might object. This has been done, and will obviate the necessity of sending the case back to the master.

The Belcher Company has filed an itemized account of its expenses, which amount to the sum of $22,865.73.

The Krentler Company contends that the profits found by the master cannot be increased under the provisions of United States Code, tit. 35, 68 and 70), 35 U.S.C.A. 68, 70; Comp. St. 9465, 9467), so as to include any part of these expenses. It is my opinion, as I have already said, that this contention is not well founded. They also specifically object to the following items in the account:

| | |
|---|---|
| (1) Ellis Spear, Jr. | $18,554.73 |
| (2) Mr. Southworth and Mr. Rinehart approximately 308 hours, at $2 | 616.00 |
| (3) Mr. Peterson, approximately 9 weeks, at $40 | 360.00 |
| (4) Clerical, approximately | 50.00 |
| (5) Auto mileage, approximately 600 miles at 15 cents | 90.00 |

It objects to item No. 1 because it includes the sum of $2,319.73 which was charged in connection with a suit brought by the Belcher Company against the Krentler Company's licensee, the Dayton Last Works, which was afterwards discontinued, and also because this item includes the sum of $1,000 charged on account of the services rendered on the appeal from the master's report. The Krentler Company also objects to items 2, 3, 4 and 5, on the ground that they were not extra expenses caused by the infringement. These objections are sustained, and the amounts objected to are disallowed. The total of these amounts is $4,435.73. There remains as proper expenses of litigation the total sum of $22,865.73, less the disallowed amount of $4,435.73 or $18,430. The court has the power under section 70 to increase the damages to an amount not exceeding three times the sum of profits and damages.

The profits found, as already stated, are $10,368.30. The limit allowed by the statute is three times this amount, or $31,104.90. I allow damages in the sum of $18,430, making a total of $28,780.30. In addition to that interest at 6 per cent should be

allowed on the amount of profits from the date of the master's report. . This opinion is filed on February 14, 1928. The master's report came in on December 14, 1927, just two months ago. Two months' interest on $10,368.30 is $103.68. The total amount, therefore, is $10,368.30 profits, $103.68 interest, and $18,430 damages, making a total of $28,901.98.

Let a decree be entered in favor of the Belcher Company for this amount.

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MOTION FOR ORDER TO SHOW CAUSE WHY KRENTLER-ARNOLD HINGE LAST COMPANY, PLAINTIFF, SHOULD NOT BE HELD FOR CIVIL AND CRIMINAL CONTEMPT IN WILLFUL VIOLATION OF INJUNCTION.

[Filed June 4, 1929.]

Now comes the defendant counter-claimants George E. Belcher Company and J. Howard Leman, by their counsel Ellis Spear, Jr., and upon the accompanying petition, supporting affidavits and exhibits referred to, moves this Honorable Court for an order requiring the plaintiff, Krentler-Arnold Hinge Last Company, to show cause, if any there be, at a session of this court, Judge James A. Lowell sitting, to be held in the Federal courts building, formerly Young's Hotel, Boston, Massachusetts, on the twenty-fourth day of June 1929, at 10 o'clock A. M. or as soon thereafter as counsel may be heard, why Krentler-Arnold Hinge Last Company, its officers, directors, attorney, agents or employees should not be held guilty for both civil and criminal contempt for willful and deliberate violation of the permanent injunction dated November 26, 1929 restraining the plaintiff, Krentler-Arnold Hinge Last Company, and its officers, directors, attorney, agents or employees from infringement of the Peterson patent No. 1,195,266 for hinge last, service of a copy of said injunction having been acknowledged on behalf of the plaintiff on the second day of December, 1926 by James R. Hodder, room 507 Tremont building, Boston, Massachusetts, as counsel of record for plaintiff.

And defendant counter-claimants further move for an order to show cause, if any there be, to be heard at the same time and

place above specified, why an attachment for contempt should not issue against the Krentler-Arnold Hinge Last Company, its officers, directors, attorney, agents or employees; the order to show cause stating the time before the hearing within which plaintiff may, if it so desires, file answering affidavits, and also the time within which defendant counter-claimants may file affidavits in reply to any affidavits filed by plaintiff; said order to show cause also designating the manner in which service of copies of this motion, together with the supporting papers and the order of the court, may be served upon the plaintiff and/or its counsel of record.

ELLIS SPEAR, JR.,
*Counsel for Counter-Claimants.*

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Thereupon, to wit, June 4, 1929, the following Order to Show Cause was entered:

ORDER TO SHOW CAUSE WHY THE PLAINTIFF, KRENTLER-ARNOLD HINGE LAST COMPANY, SHOULD NOT BE HELD IN CIVIL AND CRIMINAL CONTEMPT, AND AN ATTACHMENT ISSUED FOR VIOLATION OF PERMANENT INJUNCTION.

June 4, 1929.

This cause having come on to be heard before me this fourth day of June, 1929 upon motion of the George E. Belcher Company and J. Howard Leman, administrator c. t. a. of estate of George E. Belcher, deceased, defendant counter-claimants herein, and the petition, supporting affidavits and exhibits referred to therein, for an order requiring the Krentler-Arnold Hinge Last Company, plaintiff, to show cause why the plaintiff should not be held in civil and criminal contempt for willful and deliberate violation of the permanent injunction dated November 26, 1926, restraining the plaintiff from infringement of Peterson patent No. 1,195,266; and thereupon, and upon consideration thereof, it is

Ordered, adjudged and decreed that the plaintiff, Krentler-Arnold Hinge Last Company, its officers, directors, attorney, agents or employees show cause, if any there be, at a session of this court to be held at the Federal courts building, formerly Young's Hotel,

Boston, Massachusetts, before Honorable James A. Lowell, District Judge, June 24, 1929, at 10 o'clock A. M., or as soon thereafter as counsel may be heard, why the plaintiff should not be held for civil and/or criminal contempt for violation of the permanent injunction issued in this cause, dated November 26, 1926, restraining the plaintiff, its officers, directors, attorney, agents and employees from infringing the Peterson patent No. 1,195,266, and to further show cause, if any there be, why an attachment should not issue against the plaintiff, its officers, directors, attorney, agents or employees; it is further

Ordered that a copy of this order and the accompanying papers in support of the defendant counter-claimants' motion for its order to show cause, be served upon James R. Hodder, Esq., counsel of record for the plaintiff, by leaving a copy at his office, room 507 Tremont building, Boston, Massachusetts, on or before the fifth day of June, 1929, and by mailing a copy of this order, together with the accompanying papers, by registered mail, postage prepaid, to the plaintiff, Krentler-Arnold Hinge Last Company, at its principal place of business 1009 Majestic building, Detroit, Michigan, on or before the eighth day of June, 1929; that on or before 12 o'clock noon on the nineteenth day of June, 1929, the plaintiff shall serve upon counter-claimants' counsel, Ellis Spear, Jr., any affidavits and exhibits which plaintiff may deem advisable and expedient to present in support of any showing why the plaintiff, its officers, directors, attorney, agents or employees should not be held for civil and criminal contempt if they desire to make such showing; and that defendant counter-claimants shall have until 12 o'clock noon on the twenty-second day of June, 1929 in which to serve upon counsel for the plaintiff any affidavits or papers in reply to any papers which may be served by the plaintiff under this order; and it is further

Ordered that the physical exhibits referred to in the moving papers of defendant counter-claimants shall be retained by defendant counter-claimants' counsel until the argument of the motion to show cause why plaintiff should not be held for civil and criminal

contempt, subject, however, to inspection at all reasonable times by the plaintiff or its counsel.

JAMES A. LOWELL,
*United States District Judge.*

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On the said fourth day of June, A. D. 1929, the following Affidavits were filed:

AFFIDAVIT OF LOUIS C. SMITH, ON MOTION TO SHOW CAUSE WHY KRENTLER-ARNOLD HINGE LAST COMPANY SHOULD NOT BE HELD IN CONTEMPT.

[Filed June 4, 1929.]

Louis C. Smith, being duly sworn, deposes and states as follows:

I am the same Louis C. Smith who acted as patent solicitor in the preparation of, and prosecution before the Patent Office of, the Peterson application for a hinge last, which matured into Peterson patent No. 1,195,266, dated August 22, 1916, claims 1, 2, 3, 4, 6 and 7 of which patent No. 1,195,266 have been held valid and infringed in an opinion of the District Court rendered in this cause and reported at 300 F. R. 834, which opinion was affirmed by the Court of Appeals for the First Circuit, in an opinion reported at 13 F. R. (2d) 796.

I am the same Louis C. Smith who testified as patent attorney and patent expert, on behalf of the defendant counter-claimant herein, at a hearing in the District Court, my name being erroneously printed in the record as "Lewis E. Smith". I am familiar with the opinions of the District Court and of the Court of Appeals above referred to.

The District Court, in its opinion sustaining the Peterson patent No. 1,195,266, states as follows:

> "It seems to me that the Peterson patent is one of considerable merit and should be broadly construed. While I am not prepared to say that it would cover any arrangement of a link and a spring, it is my opinion that it does cover the construction used by the Krentler Company."

The opinion of the District Court also contains the following:

"It appears from the evidence of the prior art that Peterson invented an ingenious device whereby all the required functions of a hinged last could be furnished with the minimum of expense and the smallest number of parts. He provides for rigidity in the extended and collapsed position, and also for the feature of being able to break the last and withdraw it from the shoe. This he does by the use of a horseshoe link, merely one member."

At another portion of the opinion the following is found:

"It is true that he had in mind only one member, and the peculiar advantage of his device lies in that very fact, that he could accomplish the desired result as well, or better, by using one member as had been done in the prior art by using two or more. I do not think the fact that he had in mind merely one member prevents him from saying that his device cannot be legally imitated by using two members and thereby producing a device which will work, but the most important features of which are brought about by the use of a heavy spring suspiciously like the spring wedge of Peterson."

The opinion of the Court of Appeals, in sustaining the District Court as to its finding of the validity and infringement of the Peterson patent, states:

"We regard the Peterson patent for a hinged last, with its connecting horseshoe link and resilient spring in a single element, as valid and infringed. It was patentable over the Clausing patent No. 1,085,668, not simply because it embodied a link and spring in a single element, while in the Clausing patent they were separate, but because it was so constructed that it functioned to hold the last firmly when in its collapsed as well as its extended position; the spring of the Clausing patent functioning to hold the last members firmly only when in their extended position. Although the link and spring of the plaintiff's alleged infringing device may, as to the number of elements involved, more nearly resemble Clausing, nevertheless in its functioning and mode of opera-

tion it resembles the Peterson patent, for the connecting spring and the link not only hold the last members in proper relation, but hold them firmly in both their extended and in their collapsed positions, as does the Peterson device. The plaintiff, by separating the Peterson device into two elements, does not escape infringement."

Reference has been made to the opinions of the District Court and the Court of Appeals for purpose of convenience, and as best indicating the character and nature of the Peterson patent. This reference to the language of the court, in describing the Peterson invention, and the broad scope thereof, will obviate further description and explanation of the Peterson invention in the words of affiant.

For purposes of convenience of reference, the claims 1, 2, 3, 4, 6 and 7 of the Peterson patent No. 1,195,266 held by the Circuit Court of Appeals to be valid and infringed, will be quoted:

1. In a hinge last, the combination with a fore-part of a heel part capable of having a swinging movement relative to the fore-part and a resilient connecting member connected to both parts of the last and shaped to hold them yieldingly in either their extended or collapsed position.

2. In a hinge last, the combination with a fore-part and a heel part, of connecting means comprising means constituting a fulcrum about which the heel part turns and a longitudinally resilient connecting member connected to both the heel part and the fore-part of the last at points which are in a line at one side of the axis of movement of the heel part when the last is extended and at the other side of said axis when the last is collapsed.

3. In a hinge last the combination with a fore-part and a heel part, one of which has a groove extending transversely thereof, of means associated with the other part and occupying said groove and constituting a fulcrum about which the heel part turns, and a longitudinally resilient connecting member secured to both the heel part and the fore-part and

shaped to hold the last yieldingly either extended or collapsed.

4. In a hinge last, the combination with a fore-part and a heel part, one of which has a groove extending transversely thereof, of means associated with the other part and occupying said groove and constituting a fulcrum about which the heel part turns, and a resilient connecting member connected to both the heel and the fore-part at points which are in a line at one side of the fulcrum when the last is extended and at the other side of said fulcrum when the last is collapsed.

6. In a hinge last, the combination with a fore-part, of a heel part capable of having a swinging movement relative to the fore part, and a longitudinally resilient member connected to both the parts at points which are in a line at one side of the axis of the swinging movement of the heel part when the last is extended and on the other side of said axis when the last is collapsed whereby said member will hold the parts yieldingly in either extended or collapsed position.

7. A last comprising a heel part and a fore-part having a common fulcrum point and being arranged and constructed to turn about said point into extended and collapsed position and a longitudinally resilient member operatively connected to said parts at points which are in a line on one side of the fulcrum when the last is extended and on the other side of the fulcrum when the last is collapsed, said member being arranged to hold the last parts resiliently in either their extended or collapsed position.

There has been delivered to me by counsel for defendant counter-claimants the following two exhibits:

Exhibit 1, identified as Defendant Counter-Claimants' Exhibit 1, Smith affidavit.

Exhibit 2, identified as Defendant Counter-Claimants' Exhibit 2, Smith affidavit.

Exhibit No. 1 is a last comprising a fore-part, a heel part capable of having a swinging movement relative to the fore-part and

a single connecting member for connecting the two parts of the last together, said connecting member being resilient and functioning as a connecting link and spring.

Exhibit No. 2 is a photostat copy of six advertisements of the Krentler-Arnold Hinge Last Company, three of which illustrate a connecting link for a hinge last (designated in the advertisements, as a "sliding link"), which link is of the same type as that embodied in the last of Exhibit No 1 above referred to.

Attached hereto is a photostat copy of a drawing which was prepared under my direction showing the last of Exhibit 1 in sectional view and illustrating the last in three positions, to wit, the extended position (Fig. 1), the broken position (Fig. 2), and the intermediate position (Fig. 3). This drawing has been marked for identification "Exhibit 3, Drawing of Exhibit 1, Smith Affidavit".

The physical last, Exhibit 1, can perhaps be best described by reference to Exhibit 3, which is the drawing of the last forming Exhibit 1. This last consists of the fore-part 1 and the heel part 2, these parts being connected by a single longitudinally-resilient link or connecting member 4. The heel part 2 is capable of having a swinging movement relative to the fore-part and is shown as being formed with the knuckle 11 which fits and turns in an arcuate-shaped recess 12 formed in the rear face of the toe part, the relative swinging movement between the last parts 1 and 2 being about the center of the knuckle as an axis, which is indicated by the dot 10. The resilient link or connecting member 4 is situated in recesses 5, which are formed in the adjacent faces of the heel part and fore-part respectively. This link is connected to the heel part by means of a pin 7 and to the fore-part by means of a pin 8, these pins passing through openings 9 formed in the ends of the connecting member 4. The connecting member 4 is made up of the part 4a, the twin part 4b and the coil spring 4c which is formed from a ribbon of spring metal and is in the shape of a coil. The part 4a and the twin member 4b have an overlapping relation and the coil spring 4c is located in apertures formed in the overlapping parts of 4a and 4b. Because of the structure and location of the coil spring 4c the connecting member 4 as a

unit is longitudinally resilient, for when the link is subjected to a pulling strain, the coil spring 4c will contract, thus allowing the link to become elongated slightly and when the pulling strain is released, the expanding of the spring will return the parts 4a, 4b to their normal relative position.

The arrangement and disposition of the pins 7 and 8 which connect the connecting member 4 to the fore-part and heel part of the last is such relative to the center 10 of the knuckle, which constitutes the axis about which the heel part turns, that when the last is extended as shown in Fig. 1, a line 13 connecting the center of the pins 7 and 8 is on one side (below) the axis 10 while when the last is collapsed as shown in Fig. 2 the line 13 connecting the center of the pins 7, 8 is on the other side (above) the axis 10. This is clearly shown on Figs. 1 and 2 of Exhibit 3.

The connecting member 4 as a whole is resilient longitudinally and the resiliency of this connecting member acts to hold the last in either its extended or collapsed position. By applying sufficient force to the heel part 2 it can be swung from one extreme position to the other and in making its swinging movement it has a snap action as it passes the center due to the longitudinal resiliency of the connecting member 4. For instance, with the last in the position shown in Fig. 1, if the heel part is swung upwardly the connecting member 4 will be slightly extended during the initial swinging movement, or while the heel part is swinging from the position shown in Fig. 1 to that shown in Fig. 3, but when the line 13 connecting the center of the pins 7, 8 passes the center point 10 then resiliency of the spring 4c will cause the connecting member to contract slightly thus giving the snap action of the heel part from the position shown in Fig. 3 to that shown in Fig. 2. The same snap action will occur during the swinging movement of the heel part from the position shown in Fig. 2 to that shown in Fig. 1 as soon as the line 13 passes the center point 10.

As the last of Exhibit 1 is constructed the connecting member 4 is under a slight strain when the last is in either its straightened or collapsed position shown in Figs. 1 and 2 so that in either

of these positions said member 4 operates to hold the parts of the last firmly against each other and to prevent any lost play. The two parts of the last Exhibit 1 are yieldingly held in contact with each other in either of the two extreme positions shown in Figs. 1 and 2 and the resiliency of the member 4 is sufficient to take up any looseness which may occur due to the wearing of either the pins 7 and 8 or the meeting faces of the two members of the last.

I have had made photostat prints of the last Exhibit 1, said prints being grouped on a sheet which is identified as Exhibit No. 4, Smith Affidavit. This Exhibit No. 4 shows three photostat views of the last illustrating the last in the three positions shown on Exhibit 3, that is, in extended position, in collapsed position and in a midway position. These views are indicated on Exhibit 4 as Fig. 1, Fig. 2 and Fig. 3 respectively. Exhibit 4 also shows two views of the last with the connecting member removed. These views are designated Fig. 4 and Fig. 5. Fig. 4 shows the last in collapsed position and directly above the last is shown the connecting member which has been removed from the last. Fig. 5 shows the last in the midway position corresponding to Fig. 3 and with the connecting member lying outside of the last.

For convenience, the parts of the last shown in the photostat views are numbered the same as in Exhibit 3, the fore-part being numbered 1, the heel part being numbered 2, the connecting member being numbered 4, the knuckle on the heel part being numbered 11, which knuckle operates in the recess in the fore-part numbered 12. The center of the knuckle which constitutes the axis of the heel part in its turning movement is indicated at 10. I have had drawn on Figs. 1, 2 and 3 of Exhibit 4 the lines connecting the center of the pins which connect the connecting member to the fore-part and heel part, these lines being indicated at 13.

In Fig. 1, which shows the last extended, the line 13 is below the pivotal point 10. In Fig. 2, which shows the last collapsed, the line 13 is above the pivot point 10, just as is the case in Figs. 1 and 2 of Exhibit 3.

In making Figs. 4 and 5 of Exhibit 4 the connecting member which was removed from the last was placed at approximately

the same distance from the camera as the surface of the last, this being accomplished by building up a support of paper on which the connecting member 4 rested in Fig. 4 and by placing the connecting member on the side of the last in Fig. 5 with a piece of paper between the connecting member and the last. By measuring the distance between the holes 9 of the connecting member as shown in Figs. 4 and 5 with the distance between the holes in the last for receiving the pins 7 and 8 it is found that the normal distance between the holes 9 of the connecting member when removed from the last is slightly less than that between the pin-receiving holes in the parts of the last, thus showing that when the connecting member is assembled with the fore-part and heel part of the last said member will be placed under slight tension as stated above and will thus yieldingly hold the last in either its extended or collapsed position.

For convenience I have attached to this affidavit a copy of the Peterson patent No. 1,195,266, which copy is marked "Exhibit 5, Smith Affidavit".

Claim 6 of the Peterson patent No. 1,195,266 may be referred to as a typical claim. This claim describes a last comprising

> "(1) A fore part;
>
> (2) A heel part capable of having a swinging movement relative to the fore part;
>
> (3) A longitudinally-resilient member connected to both the parts at points which are in a line at one side of the axis of the swinging movement of the heel part when the last is extended and on the other side of said axis when the last is collapsed, whereby said member will hold the parts yieldingly in either extended or collapsed position."

An examination of the last identified as Exhibit 1, and of the photostat of the drawing of the last identified as Exhibit 3, as well as of Figs. 1, 2 and 3 of Exhibit 4 shows that the last of Exhibit 1 has "a fore part" (indicated at 1 in Exhibits 3 and 4), and also has "a heel part" (indicated at 2 in Exhibits 3 and 4) which is "capable of having a swinging movement relative to the fore-

part" by reason of the knuckle 11 operating in a recess 12, the swinging movement being about an axis 10 of the knuckle.

The last of Exhibit 1 has in the connecting link indicated at 4 in Exhibits 3 and 4 "a longitudinally-resilient member connected to both parts" (the fore-part 1 and heel part 2). This connection is through the medium of the pins indicated in Exhibit 3 as 7 and 8 and the arrangement of these pins 7 and 8 is such that said pins "are in a line at one side of the axis (10) of the swinging movement of heel part when the last is extended" and on the other side of said axis (10) when the last is collapsed whereby said member (4) will hold the parts yieldingly in either extended or collapsed position.

For these reasons I am of the opinion that the last of Exhibit 1, and which is illustrated in Exhibits 3 and 4, embodies the features of claim 6 of the Peterson patent No. 1,195,266.

While claim 6 has been taken as a typical claim the same reasoning applies to other claims. For instance, claim 2 differs from claim 6 principally in the manner of describing the pivotal connection between the heel part and fore-part. Claim 6 merely states that the heel part is "capable of having a swinging movement relative to the fore part" while claim 2 describes the connection between the two parts as comprising "means constituting a fulcrum about which the heel part turns" together with the "longitudinally-resilient connecting member", said member being described in claim 2 in exactly the same language as is employed in claim 6. The knuckle 11 on the heel part of the last of Exhibit 1 operating in the recess 12 in the fore part constitutes "a fulcrum about which the heel part turns" and hence the last of Exhibit 1 embodies the features of claim 2 equally as well as of claim 6.

Claim 4 also differs from claim 6 merely in the manner of describing the construction which provides for a swinging movement of the heel part. Claim 4 states that "one of the parts" (that is, either the heel part or the fore-part) "has a groove extending transversely thereof", and it further states that the other part has means associated therewith "and occupying said groove and constituting a fulcrum about which the heel part turns". The

rest of the claims descriptive of the connecting member is in the same language as is employed in claim 6.

In the last of Exhibit 1 the fore-part has the groove 12 and the heel part has the knuckle 11 associated therewith and occupying the groove and "constituting a fulcrum about which the heel part turns". The last of Exhibit 1 also embodies the features of claim 4.

Claim 7 describes the heel part and fore-part of the last as

> "having a common fulcrum point and being arranged and constructed to turn about said point into extended and collapsed position."

The center 10 of the knuckle constitutes a common fulcrum point about which the fore-part and heel part of the last of Exhibit 1 can turn as the last is extended or collapsed. Claim 7 further describes the last as having

> "a longitudinally-resilient member operatively connected to said parts at points which are in a line on one side of the fulcrum when the last is extended and on the other side of the fulcrum when the last is collapsed, said member being arranged to hold the last parts resiliently in either their extended or collapsed position."

This description of the longitudinally-resilient member as found in claim 7 corresponds exactly to the connecting member 4 of the last of Exhibit 1 as illustrated in Exhibits 3 and 4 and hence I am of the opinion that said last of Exhibit 1 also embodies the features of claim 7 of the Peterson patent.

LOUIS C. SMITH.

Sworn to and subscribed before me this twenty-seventh day of May, 1929.

THOMAS J. DRUMMOND,

[SEAL] *Notary Public.*

Exhibit No. 7 Smith Affidavit



A NEW LAST



## A Perfect Hinge for Lasts

Already shoe manufacturers are beginning to appreciate our new SLIDING LINE HINGE for Lasts.

Over [illegible] pair now in use, and one of the best recommendations for this Hinge is the fact that duplicate orders are being placed by shoe manufacturers after handling this Hinge, after using them in position orders, and recognizing the superiority.

The following Last manufacturers are now equipped to supply you with this superior Hinge in your Lasts, and others will have our equipment in operation as we can furnish it.

CRAWFORD, McGREGOR & CANBY CO.
Dayton, Ohio

BROCKTON LAST WORKS
Brockton, Mass.

ROCHESTER LAST WORKS
Rochester, N. Y.

S. PORTER & CO.
Worcester, Mass.

MARCHEL & TAYLOR INC.
Lynn, Mass.

S. S. REDFER & CO.
Philadelphia, Pa.

WOODWARD & WRIGHT LAST CO.
Campello, Mass.

R. L. MAHELL & CO.
Brooklyn, N. Y.

NEW YORK LAST CO.
New York, N. Y.

DAETSCH & WOODWARD, INC.
Brooklyn, N. Y.

If you're dissatisfied with SLIDING LINE HINGE when placing your next order for Lasts, by so doing you will leave no excuse from your Last Department short lasted, crooked, or loose Hugs.

KRENTLER - ARNOLD HINGE LAST COMPANY
Detroit, Michigan



## A PERFECT HINGE FOR LASTS

Our many years of experience with Hinge Lasts has given us an unequaled opportunity of knowing when a Hinge Last should be or does all the necessary requirements in the various operations in the making of shoes.

Most lasters we have been talking our new and SLIDING LINE HINGE, crying various points of merit to get the best possible results in order the Hinge practically indispensable, as after many thousands of pairs of Lasts fitted with this new Hinge, have tried out in various shoe factories, we have received as a result every Last fitted with this Hinge will give the shoe manufacturer the best Hinge now in the market.

This Hinge has been tested far enough, in connection with other Hinges, and the result proved that it will stand double the strain of any other Hinge, without breaking or crimping.

This Hinge requires less material and every frame in the Last and the last and the parts are more substantial. In fact a frame in a Last will be durable in pulling over machine, and we have received that there is a constant pressure between the last and the parts of Last making the parts very rigid without any additional fitting necessary.

We have already equipped the following Last manufacturers to manufacture the new Hinge Last—

Crawford, McGregor & Canby Co.
Dayton, Ohio

Brockton Last Works
Brockton, Mass.

Rochester Last Works
Rochester, N. Y.

S. Porter & Co.
Worcester, Mass.

McMaster & Taylor, Inc.
Lynn, Mass.

S. S. Redfer & Co.
Philadelphia, Pa.

Woodward & Wright Last Co.
Campello, Mass.

and have applications from others, which are awaiting our attention.

If you're dissatisfied with SLIDING LINE HINGE when ordering your Lasts, or you will have an explanation of how Lasts are out of commission on account of the last and we guarantee immediate removal, through the handling or remaking of Hinge.

KRENTLER-ARNOLD HINGE LAST COMPANY
Detroit, Michigan



## A Perfect Hinge for Lasts

When a Hinge for Lasts will stand a constant pull, or a tensile strain of 3,000 pounds, in a testing machine, without breaking, stretching, or bending the Hinge or Plate, it reasonably follows that a Hinge fitted to a Last will always hold the Last parts together, and keep said parts in proper alignment, thereby assuring better shoemaking than a Last that is fitted with a Hinge that will not stand the above test in the various shoe machines.

This being the fact, why continue using Lasts fitted with an inferior Hinge, that is always causing you trouble in your lasting department?

By demanding our new SLIDING LINE HINGE from your Last Manufacturers, when ordering Lasts, you will receive a Hinge that will stand the test above mentioned.

The following Last Manufacturers are now equipped to supply you with this superior Hinge in your Lasts; and others will have our equipment as soon as we can furnish it.

CRAWFORD, McGREGOR & CANBY CO.
Dayton, Ohio

BROCKTON LAST WORKS
Brockton, Mass.

ROCHESTER LAST WORKS
Rochester, N. Y.

S. PORTER & CO.
Worcester, Mass.

MARCHEL & TAYLOR INC.
Lynn, Mass.

S. S. REDFER & CO.
Philadelphia, Pa.

WOODWARD & WRIGHT LAST CO.
Campello, Mass.

R. L. MAHELL & CO.
Brooklyn, N. Y.

NEW YORK LAST CO.
New York, N. Y.

DAETSCH & WOODWARD, INC.
Brooklyn, N. Y.

KRENTLER - ARNOLD HINGE LAST COMPANY
Detroit, Michigan

This shows our new SLIDING LINE for Hinges your Lasts, a new principle and a most valuable one; strong enough to stand a pull or strain of 3,000 pounds tension, in any way, dampening it and always lasting, a way to have the Last in normal position, thereby maintaining the balance of Last in proper alignment.

Demand your Last manufacturer to fit your Lasts with this SLIDING LINE, and feel assured that if there is any difficulty with your Lasts, it is not the fault of the Hinge, but due to other conditions in your factory.

This SLIDING LINE will stand all the pressure necessary in the making of shoes without distortion.

The following Last manufacturers are now equipped to supply you with this superior Hinge in your Lasts; and others will have our equipment as soon as we can furnish it.

DAYTON LAST CO.
Dayton, Ohio

BROCKTON LAST WORKS
Brockton, Mass.

ROCHESTER LAST WORKS
Rochester, N. Y.

S. PORTER & CO.
Worcester, Mass.

MARCHEL & TAYLOR INC.
Lynn, Mass.

S. S. REDFER & CO.
Philadelphia, Pa.

WOODWARD & WRIGHT LAST CO.
Campello, Mass.

R. L. MAHELL & CO.
Brooklyn, N. Y.

NEW YORK LAST CO.
New York, N. Y.

DAETSCH & WOODWARD, INC.
Brooklyn, N. Y.

FERRIS LAST CO.
Cincinnati, Ohio

KRENTLER - ARNOLD HINGE LAST COMPANY
Detroit, Michigan

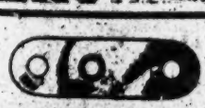
June 17, 1920

[illegible]

AUTOMATIC SHOEMAKING

[illegible]





[illegible]

The following Last manufacturers are now equipped to furnish the SLIDING LINE:

[illegible]

KRENTLER-ARNOLD HINGE LAST COMPANY
Detroit, Mich.

## THERE MUST BE A REASON

[illegible]

[illegible] LAST CO. [illegible] LAST CO. [illegible] & TAYLOR INC. [illegible]
[illegible] LAST WORKS [illegible] & CO. [illegible] LAST CO.
[illegible] LAST WORKS [illegible] & CO. [illegible] & WOODWARD, INC.
[illegible] & CO. [illegible] & WRIGHT LAST CO. [illegible] & CO.

KRENTLER-ARNOLD HINGE LAST COMPANY
Detroit, Mich.

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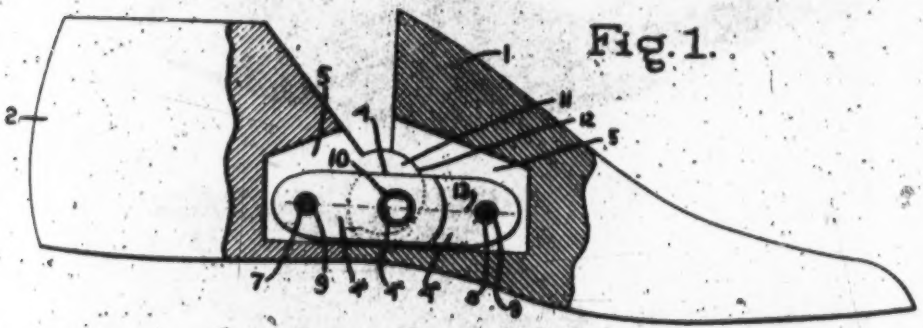
Exhibit 3, Drawing Of Exhibit 14, Smith Affidavit

Fig. 1.



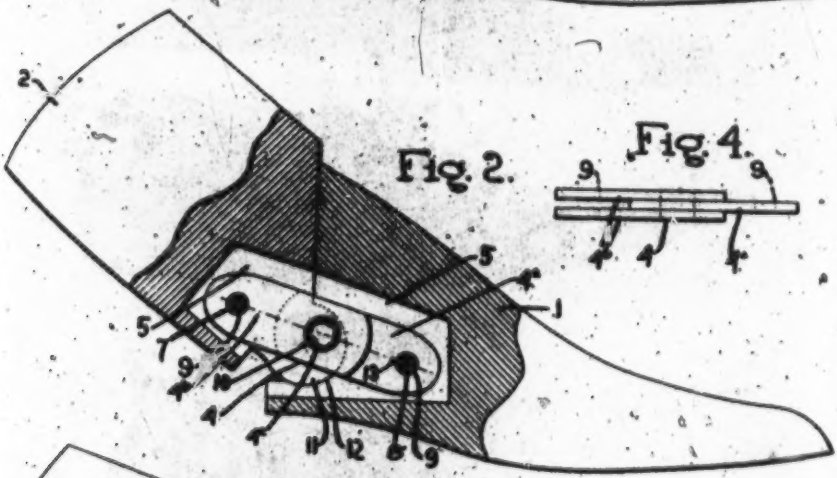




Fig. 2.

Fig. 4.



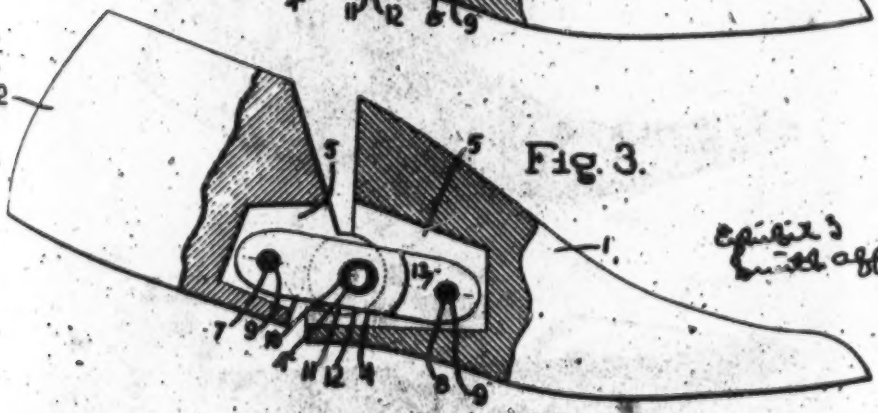
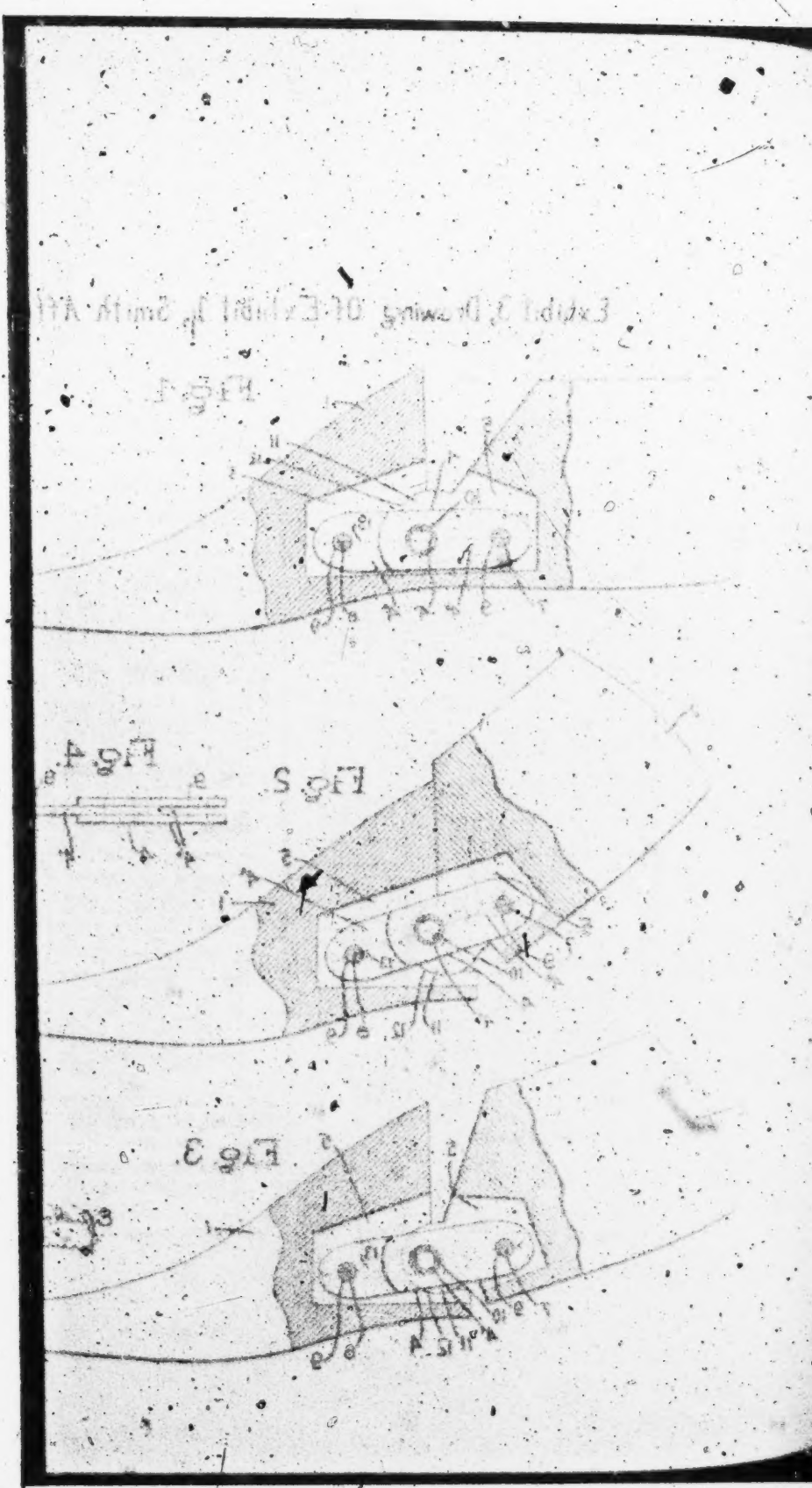
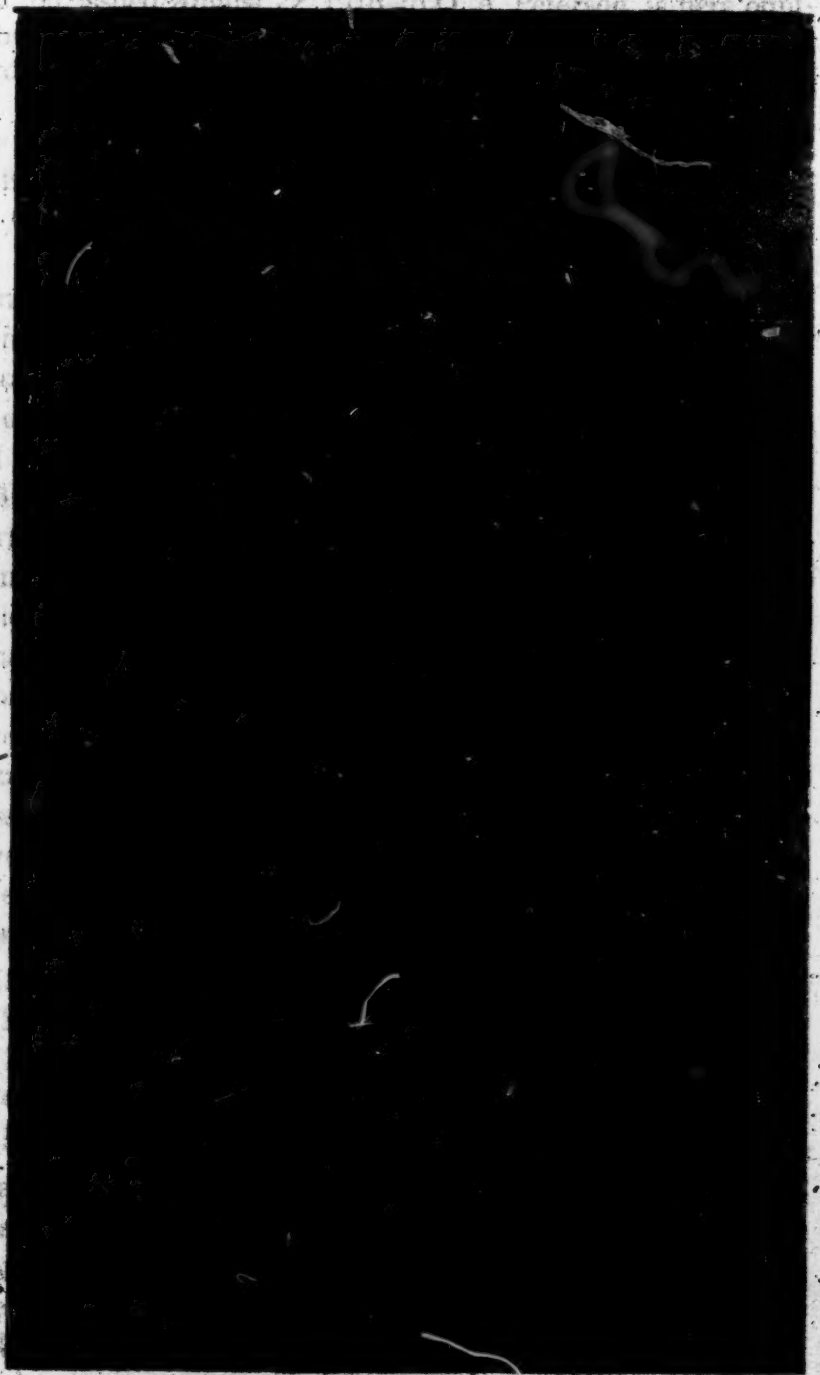
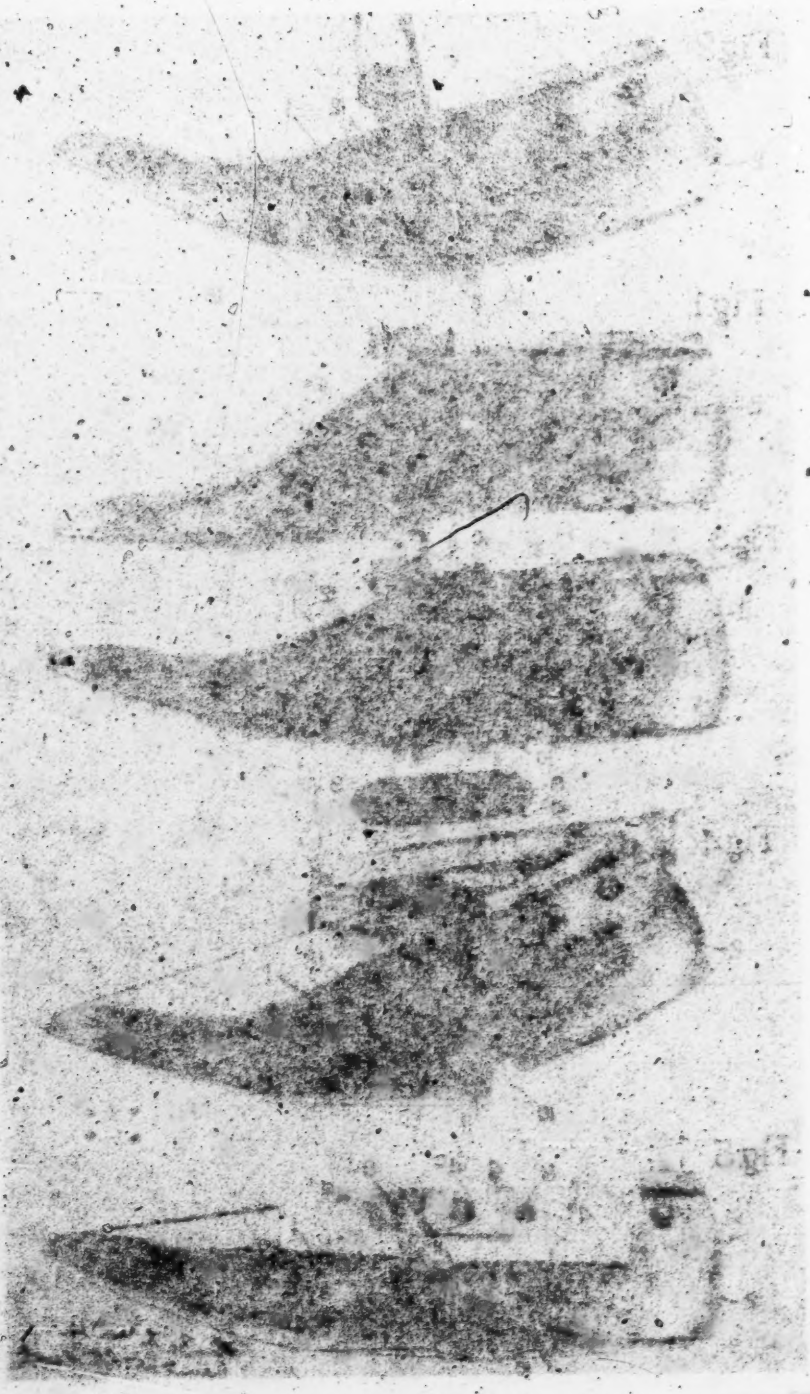




Fig. 3.

Exhibit 3
with affidavit







[MEMORANDUM. Copy of United States Letters Patent No. 1,195,266, issued August 22, 1916, to O. A. Peterson, is here omitted, but appears among the list of patents hereafter appearing of record in this transcript of record. JAMES S. ALLEN, *Clerk.*]

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## AFFIDAVIT OF ERNEST B. SOUTHWORTH, ON MOTION TO SHOW CAUSE WHY KRENTLER-ARNOLD HINGE LAST COMPANY SHOULD NOT BE HELD IN CONTEMPT.

[Filed June 4, 1929.]

Ernest B. Southworth, being duly sworn, states as follows:

I am vice-president of the George E. Belcher Company, defendant counterclaimant herein.

In or about October, 1928, the issue of a trade publication entitled "American Shoemaking", dated September 26, 1928, was called to my attention. On page 20 of this issue appeared the advertisement of the Krentler-Arnold Hinge Last Company, plaintiff in this action, from which it appeared that the Krentler-Arnold Hinge Last Company had equipped fifteen last manufacturers, named in the advertisement, to make shoe lasts embodying the longitudinally resilient link. In the advertisement this link is shown and is called a sliding link.

Attached hereto is Exhibit 1, Southworth Affidavit, page 20 of the issue of "American Shoemaking" dated September 26, 1928.

Five of the last manufacturers are named in the above advertisement of Krentler-Arnold Hinge Last Company as being its customers located in Massachusetts. These five are as follows:

| | |
|---|---|
| (1) Arnold Bros., | North Abington, Mass. |
| (2) Brockton Last Works, | Brockton, Mass. |
| (3) S. Porter & Co., | Worcester, Mass. |
| (4) Woodard & Wright Last Co., | Campello, Mass. |
| (5) McNichol & Taylor, Inc., | Lynn, Mass. |

I have been in communication with each of the above five companies and have notified them that we claim lasts embodying the spring link shown in the advertisement of the Krentler-Arnold Hinge Last Company to be an infringement of the Peterson patent No. 1,195,266 and in violation of the injunction previously

issued. Representatives of each of these companies communicated with me in reply to my letter and admitted they were making and selling the lasts embodying the resilient links shown in the advertisement Exhibit 1 which were supplied to them by the Krentler-Arnold Hinge Last Company. Attached hereto is a copy of a letter identified as Exhibit 2, Southworth affidavit. The body of the letter sent to each of the five customers of the Krentler-Arnold Hinge Last Company above named was similar to that of Exhibit 2.

I have read the affidavit of Louis C. Smith.

The last referred to in the affidavit of Mr. Smith, and therein identified as Exhibit No. 1, Smith Affidavit, was obtained at my direction from one of the customers of the Krentler-Arnold Hinge Last Company named in the advertisement Exhibit 1 attached hereto. After procuring this last it was sent to Ellis Spear, Jr., patent counsel for George E. Belcher Company, and with the request that he ascertain whether this last, embodying the resilient link of the Krentler-Arnold Hinge Last Company, was an infringement of the Peterson patent No. 1,195,266, and in violation of the injunction issued against it.

Mr. Spear and Mr. Smith advised the George E. Belcher Company that in their opinion the injunction was being violated by Krentler-Arnold Hinge Last Company in putting out the modified form of longitudinally resilient link shown in Krentler-Arnold Hinge Last Company advertisement Exhibit 1, Southworth affidavit.

I have procured other lasts from other customers of the Krentler-Arnold Hinge Last Company named in said advertisement, one such customer being McNichol & Taylor, Inc. of Lynn, Massachusetts. This last has the name "McNichol & Taylor" on the last, and includes a longitudinally resilient link of the type shown in the advertisement of the Krentler-Arnold Hinge Last Company, Exhibit 1 attached hereto. This McNichol & Taylor last was also delivered to Ellis Spear, Jr.

Attached to this affidavit are six original pages taken from various issues of the "American Shoemaking", a trade publica-

tion, showing the advertisements of Krentler-Arnold Hinge Last Company. The date and page number of the respective issues are as follows: April 25, 1928, page 25; May 9, 1928, page 24; May 23, 1928, page 26; June 20, 1928, page 24; June 27, 1928, page 23; October 17, 1928, page 3. The six pages are identified as Exhibit No. 3, Southworth Affidavit.

In the advertisement of April 25, 1928, the following appears:

> ". . . the heel and toe parts can never become separated. It has a snap to it, will not buckle in pulling over machine, and so constructed that there is a constant pressure between the heel and toe parts of last making the same very rigid without any additional locking features."

These functions and advantages are made possible by, and result from, the use of the resilient link arranged as in the Peterson patent.

The Krentler-Arnold advertisement of April 25, 1928 also contains the following:

> "A Perfect Hinge for Lasts.
> Our many years of experience with Hinge Lasts has given us an exceptional opportunity of learning what a Hinge Last should be to meet all the necessary requirements in the various operations in the making of shoes."

ERNEST B. SOUTHWORTH.

Subscribed and sworn to before me this twenty-second day of May, 1929.

[SEAL]

H. ELLIOTT WILLIS,
*Notary Public.*

**EXHIBIT No. 2 - SOUTHWORTH AFFIDAVIT.**

This letter has been sent to the following:

McNichol & Taylor Inc. Lynn, Mass
Brockton, Last Co. Brockton
Woodard & Wright Last Co. Campello
Arnold Bros & Co., No. Abington, Mass.

March 11, 1929

Att. Mr. Walter E. Bigelow.

S. Porter Co., Worcester, Mass.

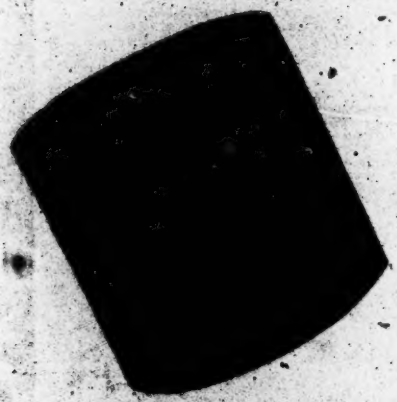
Gentlemen:—It has come to our attention that the Krentler-Arnold Hinge Last Company are marketing a spring link hinge which appears to us to violate the principle incorporated in the Belcher-Peterson link.

The writer is advised that as an officer of the George E. Belcher Company he should have announced at the annual meeting of the American Last Association held recently that in the opinion of patent counsel for the Belcher Company, this Krentler-Arnold two piece link with a spring in the middle of it is an infringement of Peterson Letters Patent No. 1,195,266, and in violation of the injunction issued by the Uuited States District Court.

He can only say that his feelings were that the association meetings were friendly and cooperative and it was and is his desire to keep them so. However, he is now instructed that he must give you this notice in justice to the rights of the George E. Belcher Company, but the writer hopes that some way may be found in which to avoid involving our friends in the association in such litigation as may be necessary to bring the new Krentler infringement before the Court. To this end we will be glad to have you write us stating whether or not you have used this Krentler link. If you have used it or have fitted up to use it, we will be glad to see you and see what can be done to avoid your embarrassment by legal proceedings which we are about to institute and of which we have given the Krentler-Arnold Hinge Last Company notice. Very truly yours,

GEORGE E. BELCHER COMPANY
Vice President.

Exhibit 14
Southwick Coff



# Foremost in

*Strength and Quality*
*Uniformity of Size*
*Smoothness of Finish*

A product of the World's Most Modern Linen Thread Mill. Made of the highest grade flax with utmost care and close supervision.

**R. J. EDERER THREAD CO. - 1332 Unity Street, Philadelphia, Pa.**

REPRESENTATIVES

Frederick A. Tarbell — W. C. Burgess — Lister, Murray & Engelhardt — G. S. Shaver Co.

**Factories: Philadelphia - Chicago - Baltimore**

REASON

Shoe manufacturers that are already using this LINK in their Lasts, and there are several hundreds of them, are saying that this is the best Hinge for Lasts they have ever used, whatever abuse the Last receives, in the various machines, the Hinge still works.

The above statements are not exaggerated, it is the best, and it will be greatly to your advantage to insist that you must have this SLIDING LINK in your Lasts when ordering from your Last manufacturer.

The following Last manufacturers are now equipped to furnish this SLIDING LINK.

ARNOLD BROS. & CO.
North Abington, Mass.

MORTON LAST CO.
Cincinnati, Ohio

DAYTON LAST CO.
Dayton, Ohio

BROCKTON LAST WORKS
Brockton, Mass.

ROCHESTER LAST WORKS
Rochester, N. Y.

S. PORTER & CO.
Worcester, Mass.

WESTERN LAST CO.
St. Louis, Mo.

McNICHOL & TAYLOR INC.
Lynn, Mass.

S. S. REDIFER & CO.
Philadelphia, Pa.

WOODARD & WRIGHT LAST CO.
Campello, Mass.

R. S. McNEILL & CO.
Brooklyn, N. Y.

NEW YORK LAST CO.
New York, N. Y.

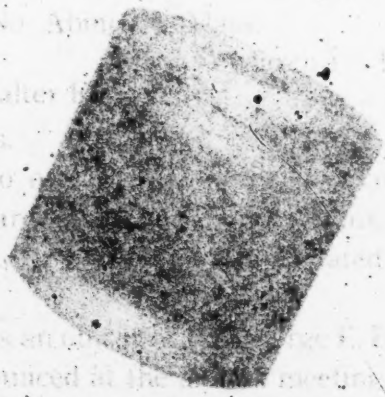
DAETSCH & WOODWARD, INC.
Brooklyn, N. Y.

HERRIN LAST CO.
Cincinnati, Ohio

FORTIN LAST CO.
Richmond, Quebec, Canada

**KRENTLER-ARNOLD HINGE LAST COMPANY**

Detroit, Mich.



shoe" in men's, women's and children's welts and turns, are reported to be very busy running their plant at capacity and with a large volume of advanced bookings.

**Announces Fiber Department**

The Davis Rug Tag Co., 736 Flushing Avenue, Brooklyn, announced that they have acquired additional floor space in the present building they occupy, due to the addition of a new fiber department to their present line of leather soles, counters, shanks and heel tops.

**Express Strike**

The entire strike of local employees of the American Railway Express necessitating an embargo on shipments, both handling and outgoing, caused transportation and heavy expense to shoe and leather stocks. The service of this company is used extensively by shoe manufacturers for deliveries, and in many cases they were compelled to find other means of making shipments. To cause extent shipments of leather were delivered, but by re-routing eventually came through. This predicament was much the strike would not last very long, and deliveries again proceed in an orderly manner.

**Forecast in Chocolate**

The men in charge of the planning and packing of the average Brooklyn factory has to be more than a forecast concerning the work of that department. Shoes must be ready in requiring high priced that have been developed through process that will the impressive eyes of a buyer, he also must possess knowledge of chemistry in order to make a success a job. The variation of leathers and materials are so that requested and necessary cannot be readily obtained match. He must depend upon his own resourcefulness other making or adding the proper preparation to at the desired result of having a damaged shoe.

**Suede at Peak**

While the suede leathers are now at their peak, ing the call over other leathers, here and there pa leather and kids are beginning to make a respect showing in lines of new samples. The demand for s may continue, then again perhaps the ultimate purcha may tire of it and demand more striking leathers.

authority ventured the opinion that suit will come back to popularity.

**Brooklyn's Shoe Products Varied**

Brooklyn is probably best known for its women's quality turns, but the products of its shoe factories are not limited to this class exclusively. It is more varied than generally believed, every conceivable type of footwear that a human being may require is made in its workshops. Besides the ladies' turns, both stitchdown and beach welts, which of course lead, the output is wide for men, women and children, in rated second. McKays for women and stitchdowns for children follow next. The various kinds made are listed as follows: ballet slippers, dancing pumps, riding boots, mules, D'Orsays, bathing slippers, sandals and felt slippers, wooden clogs, orthopedic shoes, athletic shoes for baseball, football, tennis, golf, etc., lumbermen boots, puttees, moccasins, leggins, snow [illegible]

Exhibit 3
Southworth Affidavit
(Dig proofs.)
Amer. Shoemaking
4/25/25, 5/9, 5/23, 6/20, 4/26/24/0

Exhibit 3 - Southworth Affidavit
Dig proofs - American Shoemaking
4/25/25, 5/9/25, 5/23/25, 6/20/25, 4/26/24/0

Shoe manufacturers that are already using this LINK in their Lasts, and there are several hundreds of them, are saying that this is the best Hinge for Lasts they have ever used, whatever shoes the Last produces, in the various machines, the Hinge still works.

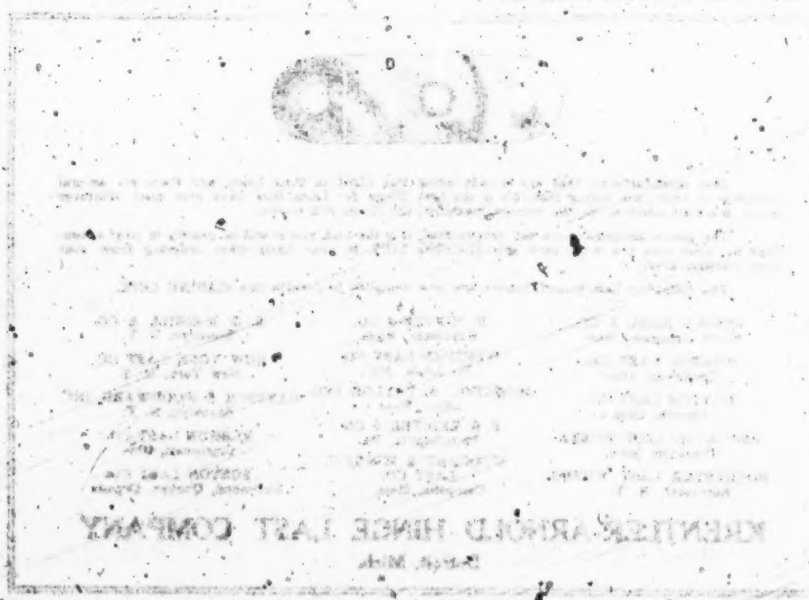
The above statements are not exaggerated, it is the best, and it will be greatly to your advantage to insist that you shall have this SLIDING LINK in your Lasts when ordering from your Last manufacturers.

The following Last manufacturers are now equipped to furnish this SLIDING LINK.

| | | |
|---|---|---|
| ARNOLD BROS. & CO. North Abington, Mass. | S. PORTER & CO. Worcester, Mass. | R. S. McNEILL & CO. Brooklyn, N. Y. |
| MORTON LAST CO. Cincinnati, Ohio | WESTERN LAST CO. St. Louis, Mo. | NEW YORK LAST CO. New York, N. Y. |
| DAYTON LAST CO. Dayton, Ohio | McNICHOL & TAYLOR INC. Lynn, Mass. | DARTSCH & WOODWARD, INC. Brooklyn, N. Y. |
| BROCKTON LAST WORKS Brockton, Mass. | E. E. HEDWIN & CO. Philadelphia, Pa. | BERGUN LAST CO. Cincinnati, Ohio |
| ROCHESTER LAST WORKS Rochester, N. Y. | WOODARD & WRIGHT LAST CO. Campello, Mass. | BOSTON LAST CO. Richmond, Quebec, Canada |

**KRENTLER-ARNOLD HINGE LAST COMPANY**

Detroit, Mich.



"I am not going to blame high heels nor the habit of walking less and riding more, because it does not do any good to find fault with popular habits. Folks have to learn from experience. The one bright spot that I see in the study foreseen in the sale of health shoes, which, I understand, are now at a new high point.

"Just do your part so we get everybody into health shoes, then we will have healthier feet and stronger bodies, and the world will look brighter than ever."

### AUTOMATIC SHOEMAKING

Lynners continue to discuss automatic methods of making shoes, being led to do so by reports that automatic machinery has appeared in shops making men's shoes, as well as by a rumor that a new machine for automatically attaching wood heels to shoes is in use, in an experimental way, in a shop near Lynn. Some Lynn manufacturers have been working on machinery for making wood heel blanks automatically. There is a conveyor system of shaping heels in a color scheme to finish them right, some expect, will compete with the present methods of covering heels, by hand methods.

### NAMES ON SHOES

The Fitz shoes here have a fairy of a fay in the heel seats of their shoes, and on the last is the title "Fay Shoes." This is an clever on that is embossed each insole with trade-marks as Lynners have seen for many a day.

Colella & Leighton name their different styles, and have the name of the style woven into a label, which they sew to the quarter linings of their shoes.

Several firms are attaching waved labels to the sock linings of their shoes, usually sewing them in to the finish.

### WITH WESTERN FIRM

Charles O'Donnell, a former Lynn shoe expert, is now with the Riley Shoe Co., of Columbus, Ohio. J. Warren Murray, formerly of Murray Bros. of Lynn, is vice-president of the Riley Co.

### FORMERLY CUT SHOES.

John H. Goldberg, who heads Bond Shoemakers', Inc., a new co-operative enterprise in Lynn, formerly cut shoes in the Chas & Daly factory in Salem.

### TRAVELERS

R. C. Cotton, of the Boston Heel Co., is home from a trip among western shoe centers.

"Jack" Dowling, of the Lee Products Co., has also been among shoe shops of the West.

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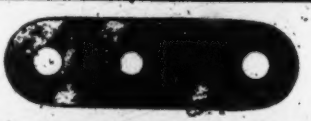
### NEW ENGLAND NOTES

Herbert W. Angier, former master mechanic of the Rice & Hutchins Shoe Company, Inc., has twelve men at work remodeling the interior of the upper stories of the former Curtis factory building on Howe St., Northboro, Mass., to allow for occupancy by the Rebot Shoe Company, which will manufacture shoes beginning the former part of July. Near the main entrance to the building will be erected a permanent structure to house the offices of the concern. Mr. Angier has the supervision of the layout of the machinery, a consignment of which has already arrived. Work benches and other equipment to be used in the manufacture of shoes are to be installed in a central position while the upper floorsl will be used as the packing department. There is a freight elevator from this floor. There are two large entrances which lead into the adjoining rooms in which the lasting and welting departments are located. The cutting department will utilize the east wing of the building, sharing this section with the cutting division. Manager Robert H. Johnson, chairman of the Industrial Committee, of the Northboro Chamber of Commerce, and managing trustee of the Northboro Industrial Trust, which owns the building, is a daily visitor at the plant. About 250 hands will be employed when the new factory is opened.

The General Sole Company, of Boston, dealers in shoe soles, had been incorporated with a capital stock of $50,000. There are 500 shares of preferred stock with par value of $100 each and 500 shares of common without par value. The officers and directors are: President, Francis W. Fahey; Treasurer, Mrs. Florence G. Mahoney, 5 Union street, South Boston, and Arthur V. Grimes.



# THERE MUST BE A REASON

Since we have demonstrated and proved that our new SLIDING LINK for singing Lasts is superior to any other device for the purpose; some of the most prominent Last manufacturers have applied to us to equip their factories that they may hinge Lasts, for their trade, with this new SLIDING LINK; as without the means listed below.

The reason being that Lasts fitted with this SLIDING LINK will, as some have expressed themselves "stay put"; in other words, the Lasts are so superior to any others, that shoe manufacturers will have no worries about their Hinges breaking, stretching, or becoming loose and bending.

With the demands, through competition you have to meet, today, in shoemaking, the best is none too good in your equipment necessary to meet these requirements; and as Lasts are the foundation of shoemaking, insist that your Lasts are hinged with this SLIDING LINK, instead of an inferior Hinge that will cause trouble and worries.

Consider this important matter when purchasing Lasts.

DAYTON LAST CO.
Dayton, Ohio

McNICHOL & TAYLOR INC.
Lynn, Mass.

R. S. McNEILL & CO.
Brooklyn, N. Y.

BROCKTON LAST WORKS
Brockton, Mass.

S. S. REDIFER & CO.
Philadelphia, Pa.

NEW YORK LAST CO.
New York, N. Y.

ROCHESTER LAST WORKS
Rochester, N. Y.

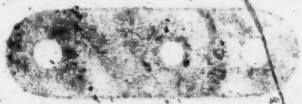
WOODARD & WEIGHT LAST CO.
Campello, Mass.

DARTSCH & WOODWARD, INC.
Brooklyn, N. Y.

S. FOSTER & CO.
Worcester, Mass.

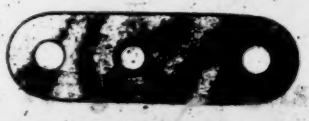
REBSUN LAST CO.
Cincinnati, Ohio

KRENTLER-ARNOLD HINGE LAST COMPANY
Detroit, Mich.



THERE MUST BE A REASON

KRENTLER-ARNOLD HINGE LAST COMPANY



This shows our new SLIDING LINK for hinging your Lasts, a new principle and a most effective one; strong enough to stand a pull or strain of 3,000 pounds without, in any way, damaging it, and always having a snap to force the heel in natural position, thereby maintaining the bottom of Last in proper alignment.

Demand your Last manufacturer to hinge your Lasts with this SLIDING LINK, and feel assured that if there is any difficulty with your Lasts, it is not the fault of the Hinge, but due to other conditions in your factory.

This SLIDING LINK will stand all the pressure necessary in the making of shoes without distortion.

The following Last manufacturers are now equipped to supply you with this superior Hinge in your Lasts, and others will have our equipment as soon as we can furnish it.

DAYTON LAST CO.
Dayton, Ohio

BROCKTON LAST WORKS
Brockton, Mass.

ROCHESTER LAST WORKS
Rochester, N. Y.

S. PORTER & CO.
Worcester, Mass.

McNICHOL & TAYLOR INC.
Lynn, Mass.

S. S. REDIFER & CO.
Philadelphia, Pa.

WOODARD & WRIGHT LAST CO.
Campello, Mass.

R. S. McNEILL & CO.
Brooklyn, N. Y.

NEW YORK LAST CO.
New York, N. Y.

DAETSCH & WOODWARD, INC.
Brooklyn, N. Y.

REHRLIN LAST CO.
Cincinnati, Ohio

**KRENTLER - ARNOLD HINGE LAST COMPANY**

Detroit, Michigan

turned shoes. The members of the firm are of a prominent family of shoe men, being brothers of the late Geo. B. Leavitt and F. R. Leavitt, who were among the largest firms in this city for many years.

We find quite a few firms that have started manufacturing stitchdowned shoes, early spring in addition to C. H. & D. B. Leavitt and L. H. Dudley.

Turned shoes who make three of men's slippers will sign on the water way on the month of July turn a fairly good volume of these goods. Chester A. Read and Knights & Allen are among the largest producers in these lines.

At Boston, the latest plant, Factory F of the J. F. McElwain Co., is now making 500 dozen pairs daily, having been started only one week. They are not to pause but will gain in production until they reach capacity. At this time with present factories at volume production they are the second largest producing shoe firm on men's and boys' Goodyears. Their quick starting of Factory F is at present unequaled in the history of shoe manufacturing.

At Derry, N. H., shoe business here is rather quiet excepting the Progressive Shoe Co., who are making 50 cases daily at this time, this being a remarkable output for any firm making women's Oxfords in the present state of women's shoe production.

The second annual field day of the Quarter Century Club of United Shoe Machinery Corp., to be held at Beverly, June 16, is postponed until the last Saturday in June. The Haverhill club has now 18 members of this organization who look forward with pleasure to the coming outing and entertainment.

# New York

**Grieve-Flieger Sends Offered**

A new offering on the market was an issue of $1,000,000 the Grieve-Flieger Tanning Company first mortgage 6½ percent bonds, due in 1948. The company reported consolidated net earnings after all charges, including interest paid, but before depreciation and provision for Federal income tax for the four years ended December 31, 1927, averaging $977,597 annually. With the exception of two years in which only small dividends were declared, the company has paid such dividends in every year since its inception, some three years ago.

A petition in bankruptcy was filed against Charles Jacobs, 6121 Eighth Avenue, Manhattan, by B. Friedman Shoe Co., Inc., for $121; Sheryn Shoe Co., Inc., $237; Davis & Levy, $144. Nathan Lieberman was appointed receiver under $1,000 bond, by Judge Winslow. Liabilities not stated; assets listed $2,000.

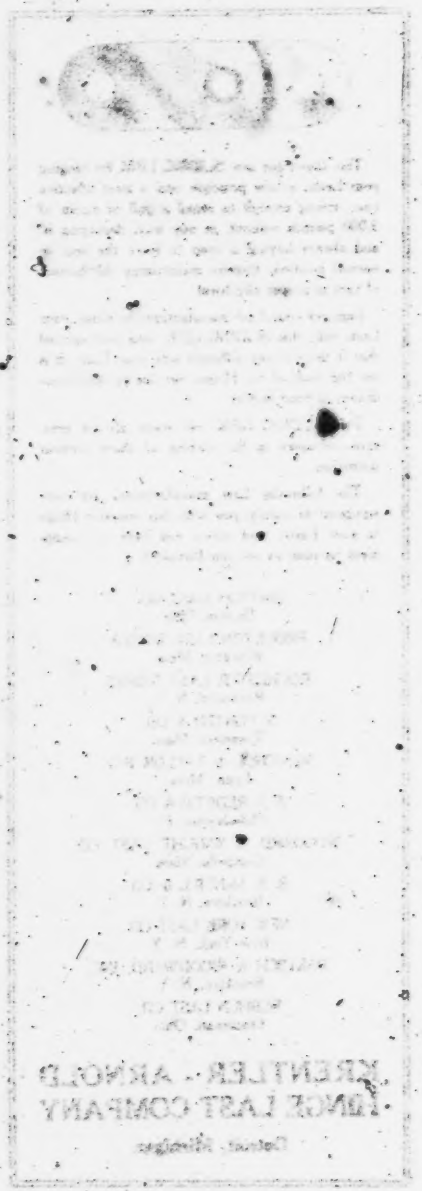
Harris Hochwald, who was formerly sitting room foreman with Hochwald-Sykes, Inc., is now connected in a like capacity with Gerson Shoe Manufacturing Co., in Manhattan.

**Rosenwasser Bros. Bring Suit**

Suit for $1,000,000 for an alleged breach of contract was begun this week in the Brooklyn Supreme Court, by Rosenwasser Bros., Inc., of Long Island City, against Henry and Jacob Blyn, president and treasurer, respectively, of the Blyn Shoes, Inc., which operates a chain of retail shoe stores. The Rosenwasser Corporation claim that in April, 1926, the two concerns entered into an agreement whereby the Blyn concern were to place all their orders with the Rosenwasser concern, and that in anticipation of that arrangement Rosenwasser bought $90,076 worth of the Blyn stock. The complaint alleges that the Blyn Company continued to place large orders with other manufacturers. A general denial of the charges was entered by the Blyn Company.

**U. S. Leather Sells Grieve-Flieger**

The United States Leather Company announced the sale of the controlling interest in the Grieve-Flieger Tanning Company, which was purchased about ten years ago by the Central Leather Company. A minority interest of Grieve-Flieger made a satisfactory offer for control, which was accepted. The price reported to have been paid was approximately $2,500,000 in cash.



# A Perfect Hinge for Lasts

When a Hinge for Lasts will stand a straight pull, or a tensile strain of 3,000 pounds, in a testing machine, without breaking, stretching, or bending the Hinge or Pins, it necessarily follows that a Hinge fitted to a Last will always hold the Last parts together, and keep said parts in proper alignment, thereby causing better shoemaking than a Last that is fitted with a Hinge that will not stand the above test in the various shoe machines.

This being the fact, why continue using Lasts fitted with an inferior Hinge, that is always causing you trouble in your lasting department?

By demanding our new SLIDING LINK HINGE from your Last Manufacturer, when ordering Lasts, you will receive a Hinge that will stand the test above mentioned.

The following Last Manufacturers are now equipped to supply you with this superior Hinge in your Lasts; and others will have our equipment as soon as we can furnish it.

CRAWFORD, McGREGOR & CANBY CO.
Dayton, Ohio

BROCKTON LAST WORKS
Brockton, Mass.

ROCHESTER LAST WORKS
Rochester, N. Y.

S. PORTER & CO.
Worcester, Mass.

McNICHOL & TAYLOR INC.
Lynn, Mass.

S. S. REDIFER & CO.
Philadelphia, Pa.

WOODARD & WRIGHT LAST CO.
Campello, Mass.

R. S. McNEIL & CO.
Brooklyn, N. Y.

NEW YORK LAST CO.
New York, N. Y.

DAETSCH & WOODWARD, INC.
Brooklyn, N. Y.

**KRENTLER - ARNOLD HINGE LAST COMPANY**

Detroit, Michigan


there will be plenty of opportunity to wear white shoes. "White shoes are in for a big season this summer. When the white season is in full blast almost everybody will find that they have not made sufficient preparation to take care of the demand. But you distributors on white stuff shoes from stock are already busy. Since the opening of the season date last year. We are receiving many duplicate orders for white shoes, and, of course, mostly from the South. Printed duckins are an article that women of fashion will not attempt to match them with shoes, but will wear white shoes with their colorful printed dresses. Sport footer will be worn with colored stockings and white shoes with colorful trimmings will complete the ensemble. The most popular white shoes will be trimmed as before. For children's wear, shoes of tan vicky, white shoes with trimmings of blue, red and maroon colored kid. Straps, cut-out effects and ties will be the popular patterns. Cotton boots in the welt types and also Junior Louis boots will be correct. Tuxes will call in 11/2 Louis boots and also with Junior Louis heels. For sport and country wear, lace effects of the Prince of Wales type, also with overlapper with buckles, worn carrying a bull strap and others with wing tips, will prevail. There will be sold in white, trimmed with tan calf, black calf and genuine alligator." Mr. Gibson has a wide reputation as a "style picker" and no doubt his predictions will be given serious attention.

### Death of Henry Eldredge

Sixty years of service in the shoe trade, most of this time with the United Shoe Machinery Corp.'s Rochester plant, was the splendid record left by Henry Eldredge, whose death at Rochester is announced at the age of 81 years. Mr. Eldredge was born in Troyer, Me., in 1845, and he began his service with the predecessor unit of the United Shoe Machinery in 1866. He was in the service of the U. S. M. C. at the time of his death, and as he was one of the best-loved of the large force in the Rochester office, his passing is deeply regretted by his host of friends. Mr. Eldredge came to Rochester in 1888, when the United Shoe Machinery Corp. opened its office here. General Manager George Baxter of the Rochester office paid a splendid tribute to the character, reliability and trustworthiness of Mr. Eldredge, and with the principal executives of the company and many employees, the shoe manufacturers and corporations, attended the funeral, which was held last Thursday afternoon from the home at 685 Oxford St. avenue. The Rev. H. H. Mathes, minister of the Emmanuel Presbyterian Church, conducted the services. Acting as pallbearers were employees of the United Shoe Machinery Corp. who were honorary. Interment was in Mt. Hope Cemetery.

Henry Eldredge

Mr. Eldredge did considerable pioneering work in placing shoe machinery in manufacturing plants all through the country at the time of the transition from hand processes to machine made shoes of the Blake type, now better known as McKays. He was an expert mechanic and knew how to handle people successfully as well as how to handle tools and machinery. He was a man of cultured mind and broad views and always had the welfare of others in mind. It was just twenty years ago that he made the presentation speech when the late H. C. Woodman, for years a fellow employee of the United, received a gold case on the occasion of his 65th birthday anniversary, the gift of his associates.

A Perfect
Hinge for Lasts

KRENTLER - ARNOLD
HINGE LAST COMPANY

# A Perfect Hinge for Lasts

Already shoe manufacturers are beginning to appreciate our new SLIDING-LINK HINGE for Lasts.

Over 100,000 pair now in use, and one of the best recommendations for this Hinge is the fact that duplicate orders are being placed by shoe manufacturers demanding this Hinge, after using them in previous orders, and recognizing their superiority.

The following Last manufacturers are now equipped to supply you with this superior Hinge in your Lasts, and others will have our equipment as soon as we can furnish it.

CRAWFORD, McGREGOR & CANBY CO.
Dayton, Ohio

BROCKTON LAST WORKS
Brockton, Mass.

ROCHESTER LAST WORKS
Rochester, N. Y.

S. PORTER & CO.
Worcester, Mass.

McMICHOL & TAYLOR INC.
Lynn, Mass.

S. S. REDIFER & CO.
Philadelphia, Pa.

WOODARD & WRIGHT LAST CO.
Campello, Mass.

R. S. McNEILL & CO.
Brooklyn, N. Y.

NEW YORK LAST CO.
New York, N. Y.

DAETSCH & WOODWARD, INC.
Brooklyn, N. Y.

Be sure to demand this SLIDING LINK HINGE when placing your next order for Lasts, by so doing you will have no complaints from your Last Department about broken, stretched, or loose Hinges.

**KRENTLER - ARNOLD HINGE LAST COMPANY**

Detroit, Michigan


## A NEW LAST

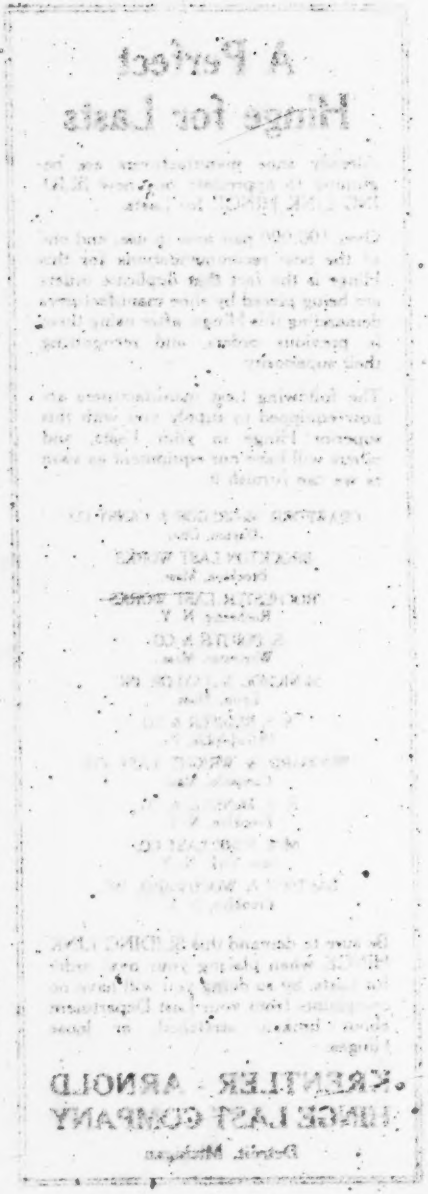
McMichol, Taylor, Inc., have a new "E. C." to speak more truly, a last with a new hinge. The shape is of this construction, and of such design the ... on than an ordinary amount of wood is cut away from the last to make room for it. Hence more substance of wood in the last, and more strength. The hinge has a spring which snaps it into a lock most securely. It is claimed that the last will not break down in the pulling over machine, nor buckle, under any end and toe pressure that may be applied to it in ordinary shoemaking.

## A SPOTLESS SHOP

H. H. Brownson Shoe Co. makes no bid for publicity. But the title of "the spotless shop" has been thrust upon its factory. The building is not of the newest construction, but Mr. Brownson and his associates have succeeded in making it a model of neatness. And, to repeat a familiar epigram, cleanliness is the first essential of good shoemaking. Henry Ford has declared that it is the first essential of all manufacturing.

In this Brownson shop, they keep to styles somewhat conservative. Just now, they are making shoes of orchid kid, white all over, for the summer; also shoes of patent leather and of black suede, calf, and a few of glazed calf and a combining of colors. They do not believe that fad and style gains in respect to style and color. They do stick to good shoemaking, and their shoes have nothing right about, with the consequence that their shop runs steadily.

Lastly, they have had the Independent system, applied to their cutting room. A while ago, they cut up 1,000 pairs daily; lately



We now are dealing with footwear as a luxury. So we diversify our styles as much as we can, and as often as we can, which is a sound business policy when one deals with luxuries. The thought at the bottom of the matter is that shoes must be of such style that women are tempted to buy them."

### ANOTHER VERSION

"Shoes to fit the foot," was Lynn's slogan of not so very long ago. Later came the saying, "Shoes to fit the eye." And for a while there was a remark about "Shoes to fit the purse." Now the main idea is "Shoes to fit the mind," meaning style to please the fancy.

It is true, beyond the shadow of a doubt, that unless shoes delight the senses of the buyer, she will not shoes them.

### CO-OPERATIVE HEEL ENTERPRISE

Wash City Wood Heel, Inc., a co-operative enterprise, is starting to make wood heels at 541 Bridge street, Salem, Mass. Charles H. Comer, president, is sales manager, Lyman O. Ross is treasurer and factory manager, and O. C. Johnson is clerk and office manager. All were formerly connected with the Haverhill trade. Employees own stock in the corporation and will share in the profits.

### A DISCOURAGED INVENTOR

Once there was here a man gifted in invention, for he could make locks that nobody but himself could open, and various ingeniously conceived devices for use in the arts as well as industry. Though a man of superior intelligence, yet some of the careless mothers of the time began to speak of him as "the nut." Before the unfortunate title the invented fled, for he was a sensitive man, and the tradition is that he went to the West and there changed his name and embarked on a new career. So Lynn lost a genius who might have contributed much to its industrial prosperity.

Fortunately, inventors are held in higher esteem these days, and the makers of machinery so admire them that they take good care that they are not snapped.

### MAY LEAD NEW ENTERPRISE

"Josh" Gorman, of Gorman, Farr & Watertown, now in voluntary liquidation, has been asked to manage the Harmony Shoe Co., which has been turned out as a co-operative enterprise by former employees of the firm. He has made a conditional acceptance of the invitation.

### TWO FORMER PAGE ON

Charles S. Burvis, for 19 years foreman of the cutting room in the factory of J. L. Walker Co., Lynn, and later foreman for Merrill Porter & Co., Lynn, died last week aged 64 years. He was a member of the Elks and Red Men, and he was active in affairs of the Lynn Association of Superintendents and Foremen.

William H. O'Brien, a Lynn shoe expert, died last week aged 66 years. He was foreman for Harvey Bros. of Lynn and later in factories in Maine, and was at one time superintendent of the factory of the Bunker Hill Shoe Co. in Everett.

### A VETERAN CUTTER

Charles S. Watson, a shoe cutter for more than 50 years, died at his home in Lynn last week aged 72 years. He started to learn shoemaking when he was 12 years old. He his career covers 60 years. He was at one time an actor in amateur productions, and later was active in politics. Young cutters accepted him and familiarly called him "Pop" Watson. He worked for many years in the factory of Frank W. Breed, and more recently for the Mahaney Shoe Co.

### CO-OPERATIVE INCORPORATED

Marblehead Shoes, Inc., has been incorporated with a capital of $50,000 to make women's shoes in Marblehead. Fred W. Thrasher is president and Malcolm L. Bell treasurer. This is a co-operative enterprise. Stock in it has been taken by citizens of the old town.

### MAKES NEW CONNECTION

Harry Thomas, who was recently with Merrill Porter & Co., is now with Street & Britton. He was formerly of V. E. & A. H. Jones & Thomas.


# A PERFECT HINGE FOR LASTS

Our many years of experience with Hinge Lasts has given us an exceptional opportunity of learning what a Hinge Last should be to meet all the necessary requirements in the various operations in the making of shoes.

For months we have been testing out our new SLIDING LINK HINGE, trying various qualities of metal to get the required strength to make the Hinge practically unbreakable; and after many thousands of pairs of Lasts, fitted with this new Hinge, have been tried out in various shoe factories, we have arrived at the point where a Last fitted with this Hinge will give the shoe manufacturer the best Hinge ever in the market.

This Hinge has been tested for strength, in comparison with other Hinges, and the result proved that it will stand double the strain of any other Hinge, without breaking or stretching.

This Hinge requires but wood one away from the Last; and the heel and toe parts can never become separated. It has a way to it, will not buckle in pulling-over machines, and is so constructed that there is a constant pressure between the heel and toe parts of Last making the same very rigid without any additional locking fastener.

We have already equipped the following Last manufacturers to manufacture this new Hinge Last:—

CRAWFORD, McGREGOR & CANBY CO.
DAYTON, OHIO

BROCKTON LAST WORKS
BROCKTON, MASS.

ROCHESTER LAST WORKS
ROCHESTER, N. Y.

S. PERTH & CO.
WORCESTER, MASS.

McNICHOL & TAYLOR, INC.
LYNN, MASS.

S. S. REMPIS & CO.
PHILADELPHIA, PA

WOODWARD & WITHEY LAST CO.
CAMPBELL, MASS.

and have applications from others, which are receiving our attention.

Be sure to demand this SLIDING LINK HINGE when ordering your Lasts, as you will have no complaints of loose Lasts, nor Lasts out of commission on account of the heel and toe parts becoming separated through the breaking and stretching of Hinge.

## KRENTLER-ARNOLD HINGE LAST COMPANY

Detroit, Michigan

On the tenth day of said June, the following Withdrawal of Appearance of James R. Hodder for plaintiff was filed with papers attached:

WITHDRAWAL OF APPEARANCE.

[June 10, 1929.]

No. 1853 Equity.

Krentler-Arnold Hinge Last Company

v.

J. Howard Leman, Administrator.

The clerk will enter my withdrawal appearance for the Krentler-Arnold Hinge Last Company.

Name, JAMES R. HODDER,
Address, 505 Tremont Building.

---

[On Letterhead of James R. Hodder.]

[Copy.]

Boston, Mass. June 4, 1929.

Mr. Ellis Spear, 626 Tremont Bldg., Boston, Mass.

Dear Sir: Today, when Mr. Gale of your office handed to me a set of papers which he stated he wished to serve on the Krentler-Arnold Hinge Last Co., I informed him that I could not accept such service, and that I had no authority whatever in the matter. Also, I reminded Mr. Gale, and herewith remind you, that I understand that you have been in continuous correspondence during the past six months with the Krentler-Arnold Co's attorneys, Messrs. Barthel, Flanders & Barthel of Detroit, Michigan, who are and should be the parties to whom you should send any communications in this matter, and who should be accorded the proper courtesy of ample notice in any further proceedings.

Very truly yours,

JRH:M JAMES R. HODDER.

[On Letterhead of James R. Hodder.]

Boston, Mass. June 5, 1929.

John E. Gilman, Jr., Deputy Clerk, U. S. District Court, Young's Hotel Bldg., Boston, Mass.

Equity No. 1853 Krentler-Arnold Hinge Last Co. *v* J. Howard Leman, Administrator, et al.

Dear Sir: In the above entitled case I have been handed a mass of papers by Atty. Spear, and I advised him that I am no longer acting in this matter, and I enclose copy of the letter I delivered to Mr. Spear's office. So far as I am concerned, the case is entirely closed, and other attorneys have been representing the Krentler-Arnold Company, for the past six months. If proper, therefore, will you please withdraw my appearance.

Respectfully,

JRH:M JAMES R. HODDER.

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This cause was thence continued to the June Term, A. D. 1929, when to wit, July 8, 1929, the following Motion to Dismiss was filed:

MOTION OF KRENTLER-ARNOLD HINGE LAST COMPANY TO DISMISS PETITION FOR CONTEMPT.

[Filed July 8, 1929.]

Now comes Krentler-Arnold Hinge Last Company and, appearing specially by its attorney solely for the purpose of objecting to the jurisdiction of the court, moves that the petition for contempt be dismissed for lack of jurisdiction over the respondent.

By its Attorney,

ROBERT CUSHMAN,

*Appearing specially as aforesaid.*

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Also on the same day the following Special Appearance was filed:

SPECIAL APPEARANCE.

[Filed July 8, 1929.]

I hereby appear specially for the Krentler-Arnold Hinge Last Company, named as party respondent to the petition for contempt, entitled as above, solely for the purpose of objecting to the jurisdiction of the court over said respondent.

ROBERT CUSHMAN.

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At the same term, to wit, July 15, 1929, the following Affidavits were filed:

AFFIDAVIT OF FRED DREW, ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY ON SHOW CAUSE ORDER FOR CONTEMPT.

[Filed July 15, 1929.]

Fred Drew, being duly sworn, deposes and says as follows:

I am president and treasurer of Brockton Last Company of Brockton, Massachusetts.

On June 5, 1929, I received a copy of the order to show cause, petition and accompanying affidavits in the above-entitled matter by registered mail directed to me as a director of Krentler-Arnold Hinge Last Company.

I am not a director in Krentler-Arnold Hinge Last Company and have not been for some time.

I returned the said papers to Mr. Ellis Spear, Jr., by prepaid mail addressed to his office 625 Tremont Building, Boston, Massachusetts, together with a letter from me advising him that I was no longer a director of the said company.

FRED DREW.

Subscribed and sworn to before me this eighth day of July, 1929.

CARLTON C. CAMPBELL,
*Notary Public.*

[SEAL]

AFFIDAVIT OF JAMES R. HODDER ON BEHALF OF THE KRENTLER-ARNOLD HINGE LAST COMPANY ON PETITION FOR CONTEMPT.

[Filed July 15, 1929.]

COMMONWEALTH OF MASSACHUSETTS,
COUNTY OF SUFFOLK, ss.

I, James R. Hodder, on oath depose and say:

I was attorney of record for the Krentler-Arnold Hinge Last Company, plaintiff in the suit of Krentler-Arnold Hinge Last Company *v.* J. Howard Leman, Adm'r c. t. a. of Estate of George E. Belcher, deceased, et al., No. 1853, equity docket of said court.

Said suit was finally terminated by final decree, entered March 1, 1928, a copy of which is hereto annexed.

My authority to represent said Krentler-Arnold Hinge Last Company as attorney of record in said suit, or otherwise in said litigation, terminated upon the entry of said final decree, March 1, 1928.

Said Krentler-Arnold Hinge Last Company is a Michigan corporation and neither has nor ever has had any office or place of business in the District of Massachusetts, and has no officer or director or other representative so far as I am aware resident in said district.

JAMES R. HODDER.

Subscribed and sworn to before me this eighth day of July, 1929.

DUNCAN L. MACINTYRE,
*Notary Public.*

[SEAL]

District Court of the United States
District of Massachusetts.

In Equity No. 1853.

Krentler-Arnold Hinge Last Company, Plaintiff,
v.
J. Howard Leman, Administrator C. T. A. of the Estate of George E. Belcher, and George E. Belcher Last Company, Defendant.

FINAL DECREE.

March 1, 1928.

Brewster, J. This cause came on to be heard and was argued by counsel; and thereupon upon consideration thereof it was

Ordered, adjudged and decreed as follows, viz:

That plaintiff's exceptions to the master's report numbered V and VII be and the same hereby are sustained;

That plaintiff's exception to the master's report numbered III be and the same hereby is overruled;

That the exception of the defendants-counter-claimants numbered 1 be and the same hereby is sustained;

That otherwise the master's report be and the same hereby is confirmed;

That the plaintiff, Krentler-Arnold Hinge Last Company be and it hereby is ordered to pay to the defendant-counter-claimant George E. Belcher Company the sum of $28,901.98 and costs to be taxed.

By the Court,

JOHN E. GILMAN, Jr.,
*Deputy Clerk.*

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AFFIDAVIT OF EDWIN O. KRENTLER ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY ON SHOW CAUSE ORDER FOR CONTEMPT.

[Filed July 15, 1929.]

Edwin O. Krentler, being duly sworn, deposes and says as follows:

I am president of the Krentler-Arnold Hinge Last Company, the plaintiff herein; that the Krentler-Arnold Hinge Last Company is a Michigan corporation having a place of business in Detroit,

Michigan, and that it has no office or place of business in Massachusetts and no officer or director resident in Massachusetts; that Mr. James R. Hodder is not the Krentler-Arnold Company's attorney or counsel in this cause and has not been since the date of the notice of February 11, 1929, and Ellis Spear, Jr., was advised to this effect by letter from attorney under date of February 13, 1929, and that he has no authority to receive service of process addressed to said company in any proceedings in Massachusetts or otherwise to represent the company.

Furthermore, Krentler-Arnold Hinge Last Comyany has not manufactured, used or sold, either within this jurisdiction or elsewhere, the device shown in the Peterson patent No. 1,195,266, or the device which this Honorable Court found to infringe this Peterson patent or any equivalent or colorable variation thereof, and has committed no act of infringing the said Peterson patent within the jurisdiction of this court in any manner whatsover.

EDWIN O. KRENTLER.

Subscribed and sworn to before me this fifth day of July, 1929.

ANNA M. DORR,
*Notary Public.*

[SEAL]

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Copy

February 13, 1929.

Mr. Ellis Spear Jr. Tremont Building, Boston, Mass.

Dear Sir: Your letter of February 11, 1929 to Krentler-Arnold Hinge Last Co., has been referred to us for our consideration and investigation, and we will reply thereto as soon as we have gone into the matter thoroughly.

Very truly yours,

LEF/M

BARTHEL, FLANDERS & BARTHEL
Per

Copy.

Ellis Spear, Jr. Counsellor at Law
Tremont Building

Boston March 1, 1929

Messrs. Barthel, Flanders & Barthel, 1034–40 First National Bank Building. Detroit, Michigan.

Attention of Mr. L. E. Flanders:

Re: Belcher v. Krentler-Arnold

Dear Sirs: We have been expecting to hear from you since your acknowledgement of February 13th of our previous letter of February 11th relative to the above.

We desire to extend you every courtesy possible, but feel obliged to call your attention to the fact that the situation involved does not permit of any extended delay. We are in fact ready to file our papers calling this matter to the attention of the Court, but dislike to do this without at least this notice to you.

We hope to hear from you definitely as to your attitude in this matter before March 8th, at which time we will be obliged to file unless we have some very definite assurances from you.

Very truly yours,

lw/ ELLIS SPEAR, Jr.

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Copy.

March 5, 1929.

Mr. Ellis Spear Jr., Tremont Building, Boston, Mass.

Re: Belcher v. Krentler-Arnold.

Dear Sir: The present matter came into our hands through our having filed of late, several applications for Mr. Krentler on similar devices and we were therefore not informed as to the previous litigation, and, in fact, knew very little about the last art.

When Mr. Krentler turned this present matter over to us, it was necessary for us to begin at the beginning in looking into this matter. In order to facilitate matters as much as possible, we immediately got in touch with Mr. J. R. Hodder, but as we were instructed to make a thorough search of the prior art, which we

are now doing, there has been some delay, but not an unreasonable one, we think, in view of the circumstances.

We are working on this matter and trust that you will not push us too hard in view of the circumstances.

Very truly yours,

LEF/M BARTHEL, FLANDERS & BARTHEL

Per

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AFFIDAVIT OF EDWIN O. KRENTLER ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY ON SHOW CAUSE ORDER FOR CONTEMPT.

[Filed July 15, 1929.]

Edwin O. Krentler, being duly sworn, deposes and states as follows:

I am president of the Krentler-Arnold Hinge Last Company, the plaintiff herein, and respondent to the defendant's petition trying to have the plaintiff found in contempt of this court, and have a personal knowledge of the facts herein deposed to.

At the trial of this action this Honorable Court found the plaintiff infringed the Peterson patent No. 1,195,266 by the manufacture and sale of the hinge last device shown and disclosed in the Walter A. Krentler patent No. 1,459,061, a copy of which is now produced and shown to me and marked "Exhibit 1" to this my affidavit. Subsequently an appeal was taken from the said decision to the Circuit Court of Appeals of the First Circuit, whose decision was rendered on July 2, 1926, in which the decision of the trial court was affirmed.

Before said appeal decision was pronounced, and over a year before the plaintiff was served with an injunction, it ceased to manufacture and sell the said device found by the court to infringe the Peterson patent, and has never since manufactured or sold the said device or any substantial or material part thereof or any substantial, equivalent or colorable imitation thereof.

Your deponent emphatically and expressly denies that the plaintiff has made any attempt whatever to continue the manufacture or sale of the device found by this Honorable Court to be an in-

fringement of the said Peterson patent, and denies that the plaintiff spent any time, money or effort in contriving or designing hinge last links that would be a substantial equivalent or colorable variation of the invention shown and described in the Peterson patent, but your deponent states that the plaintiff deliberately ceased the manufacture and sale of the structure found to be an infringement one year before any injunction in this action was served upon it, and since it has carefully avoided marketing and manufacturing any last link of the form shown and described in the Peterson patent or any equivalent or colorable variation thereof.

The plaintiff has taken the precaution before marketing and selling any new links for hinge lasts or submitting such new devices to patent counsel for opinion as to whether or not the manufacture and sale of such new devices might constitute a violation of the decree of this court and of the injunction issued pursuant thereto.

The new sliding link with which the plaintiff is now charged with infringing the Peterson patent was also submitted to patent counsel, together with copy of court decision and injunction, for opinion, and instructed to go into the matter as thoroughly as possible in order to avoid any possibility of being charged with violating the injunction. Your deponent also states that the counsel to whom this matter was referred is one that was in no way identified with the previous case, the plaintiff's object being to obtain an unbiased opinion for its guidance, and the plaintiff was advised that the new sliding link did not infringe the Peterson patent nor violated this court's injunction.

Relying on the opinion of its patent counsel and relying further on the statement of this Honorable Court, "I am not prepared to say that it (Peterson patent) would cover any arrangement of spring and link", we proceeded to produce in quantity the new sliding spring link without any intent whatever of disobeying or resisting the order of this court restraining the further manufacture of the bow spring and link found to be an infringement.

In making the old bow spring and link infringing structure, the link was intended to form a rigid binder to hold the last parts

together to take the strain and blows necessary in shoemaking, and the spring was to give the same yieldingly locked action to the last as our patent No. 1,094,153; but the court ruled that the said spring was so near the shape of the Peterson horseshoe device that it infringed the Peterson patent, and the plaintiff stopped this production.

For sixteen years now the plaintiff has produced and marketed a spring and link hinge, shown in the Walter A. Krentler patent No. 1,094,153, a copy of which is now produced and shown to me and marked "Exhibit 2" to this my affidavit. This hinge is known as the Ball Bearing or B. B., and from the time of its introduction in 1913 until recently it has constituted over 90 percent of the plaintiff's production. During these years many changes in shoe machinery have taken place. The new methods and new machnery use increased pressure on the shoes in the course of manuacture which demands stronger lasts and stronger hinge fittings to withstand the shoemaking strain. The size of the last is fixed and any increase in the slot to accommodate a hinge that has been enlarged for strength weakens the wooden last. Thus there is a limit to which the last manufacturers may increase the size of the hinge to provide the required strength. The slotted tubular member 10 of the plaintiff's B. B. hinge as shown in patent No. 1,094,153, is a stamping for which a softer metal is required to take the impressed form. The sliding link which gives to the last the same yieldingly locked action as the B. B. was designed to provide all the strength demanded for use with modern shoemaking machinery to prevent breakage either of the last or of the hinge.

The new sliding link hinge is now being produced in increasing quantities, and we expect that it will ultimately assume the position in the last business formerly occupied by the B. B. last and will ultimately displace the said B. B. last, for, embodying as it does the principles of operation and action that have made the B. B. hinge so successful, its simplicity reduces the cost and its design increases the strength and efficiency. The new sliding hinge link is the successor to the B. B. hinge and is provided with

a manufactured spring in which the spring expansion holds the link ends together as in the B. B. last instead of the spring contraction as in the Peterson link.

The new sliding hinge stands up to three thousand pounds tensile strain as established by tests in a Tines Olsen tensile machine at the Peterson Spring Company, one of the manufacturing companies that make our hinges. Along with our B. B. hinge the hinges of other last manufacturers including a Peterson link from a Belcher Company last were likewise tested and all of them broke at less than one-half the strain successfully borne by the sliding link hinge; some of them broke at nine hundred pounds.

We have been supplying our customers with B. B. hinges for 11 cents a pair but we are able to supply the sliding hinge with its more than one hundred percent increase in strength and efficiency at a reduction in price of almost 10 percent, namely for 10 cents a pair.

The design of the new sliding link differs radically from the Peterson link in that it is not shaped to provide resiliency; it is composed of four pieces all essential and cooperating to produce the result and each of the four members contribute to the result and without any one of them that result would not be accomplished. The spring element contracts as the link moves towards the axis of the fulcrum or turning pivot and expands as it passes the axis, while the Peterson link does the reverse; the spring element expands as in the B. B. hinge to decrease the distance between the ends of the link while in Peterson it contracts and it contracts to increase the distance while in Peterson it expands. The new sliding link has the highly novel feature of a flat rolled spring inserted in the openings of the adjacent link ends to pin the link members together and to provide the resiliency required.

The design of the new sliding link permits by its arrangement of links and spring the use of that material for each which is best adapted for the purpose of each. The links may be made of the hardest steel stock available which stands substantially better than the metal and process used in making the Peterson device on account of its unyielding quality. The links of our new hinge

are made of the toughest wearing steel but are stamped out and do not require tempering. To use a material in the Peterson device to get equivalent results involves an expensive process of forging and tempering that raises the cost of production so high as to be prohibitive and impractical. The spring may be made of the best available spring steel thus providing a high degree of resiliency capable of withstanding tensile strains as high as three thousand pounds without set.

The design of the new sliding link further permits of a construction on which the longitudinal strain is borne along the grain of the metal, thereby rendering the same less liable to splitting or breaking than the Peterson device wherein the grain of the metal is transverse to the line of the strain.

Further, in the new sliding link the spring if it breaks will still hold the links together, thereby tying the fore-part of the last to the heel part. In the Peterson device if the links break the last parts are scattered and become lost.

EDWIN O. KRENTLER.

Subscribed and sworn to before me this third day of July, 1929.

GENEVIEVE E. MCGRANN,
*Notary Public.*

[SEAL]

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[MEMORANDUM. Copy of United States Letters Patent No. 1,459,061, issued June 19, 1923, to W. A. Krentler, marked "Exhibit 1", and United States Letters Patent No. 1,094,153, issued April 21, 1914, to W. A. Krentler, marked "Exhibit 2", are here omitted, but appear among the list of patents hereinafter appearing of record in this transcript of record. JAMES S. ALLEN, *Clerk.*]

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## AFFIDAVIT OF OTTO F. BARTHEL ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY, RESPONDENT, ON PETITION FOR CONTEMPT.

[Filed July 15, 1929.]

STATE OF MICHIGAN,
COUNTY OF WAYNE, SS.

Otto F. Barthel, being first duly sworn, deposes and says, that he is fifty-three years of age, and a resident of Detroit, Michigan;

that for the past thirty-one years he has been a member of the firm of Barthel, Flanders & Barthel, patent counsel, located in Detroit, and that his activities in connection with patents have extended for a period of approximately thirty-five years.

That during this period his activities included the making of drawings, the preparation and prosecution of applications for Letters Patent, the making of preliminary, validity and infringement searches covering inventions of various kinds, the preparation and rendering of expert opinions, service of patent experts in suits before Federal courts, etc., as well as service in interference and infringement proceedings of various kinds and various inventions.

That he has examined a copy of the Peterson patent No. 1,195,266; also a print of Defendant's Exhibit T showing the form of hinged last which was held to be an infringement in the case of Krentler-Arnold Hinge Last Company *v.* J. Howard Leman, Administrator, et al., Equity No. 1853 in the District Court of the United States for the District of Massachusetts, a copy of said print being hereto annexed and marked "Respondent's Exhibit 1"; also a copy of Petitioner's Exhibit 3 annexed to the affidavit of Louis C. Smith illustrating the form of last complained of in the present contempt proceedings; also a copy of the Krentler patent No. 1,459,061 dated June 19, 1923, the same being hereto annexed and marked "Respondent's Exhibit 2".

In said suit, Equity No. 1853, the District Court, holding that the respondent's hinged last made in accordance with Respondent's Exhibit 1 infringed the Peterson patent, said:

> "The second point raises a very interesting question. The second Krentler patent [1,459,061] shows a rigid link in connection with two springs. The Krentler Company contends that its patent is valid and affords it protection. In the first place, it is to be noted that the Krentler Company does not in practice use the two springs shown in its patent, but only one spring, which is much stronger than either of the two springs as shown in the patent and is very much like the Peterson horse-shoe hinge in form. It was in evidence that at the time when Belcher cancelled the license there was con-

siderable correspondence between the parties and their attorneys. At that time the attorney for the Krentler Company requested Belcher to assign to it the Peterson patent. This, however, was not done. After that the Krentler patent No. 1,459,061 was used. Belcher contends that this was got up by a very clever person thoroughly familiar with the last-making art in order to have some kind of a patent to meet the Peterson patent. The facts in the case, especially the one already mentioned,—that in practice the Krentler Company uses one spring instead of two, a heavier spring and one similar in shape to the Peterson horse-shoe wedge,—lends force to this contention. The Krentler Company, however, strenuously contends that the Peterson patent is limited to a construction where only one member is used, as the expression throughout the patent is "a member", and there is no suggestion in the patent that a link and spring could be used instead of the horse-shoe spring wedge of the Peterson patent. The question is a difficult one. It appears from the evidence of the prior art that Peterson invented an ingenious device whereby all the required function of a hinged last could be furnished with the minimum of expense and the smallest number of parts. He provides for rigidity in the extended and collapsed position, and also for the feature of being able to break the last and withdraw it from the shoe. This he does by the use of a horse-shoe link,—merely one member. It seems to me that the Peterson patent is one of considerable merit and should be broadly construed. While I am not prepared to say that it would cover any arrangement of a link and a spring, it is my opinion that it does cover the construction used by the Krentler Company."

The District Court says further:

"The Krentler Company earnestly contends that, as in the prior art there was a patent to Clausing (No. 1,085,668) which showed a link and a spring, it has the right to use a link and a spring without running the danger of an infringement of

the Peterson patent. This contention is, I think, unsound. The function of the spring in the Clausing patent (No. 1,085,668) was quite different from the horseshoe wedge of Peterson or the spring of the second Krentler patent. Belcher contends that the Krentler Company used a link in connection with a spring only as a subterfuge in order to get around the Peterson patent, and also that the function of holding the last rigidly in its extended position and allowing its breaking by the use of considerable force is performed in the Krentler device by the spring, and that the link has no function. This is an exaggeration, but it seems to me that the important part of the device is the spring, and not the link. I am of opinion, therefore, that the Krentler last as used with one strong U-shaped spring, although used in connection with a link, is an infringement of the Peterson patent."

The District Court says further:

"It is true that he had in mind only one member, and the peculiar advantage of his device lies in that very fact,—that he could accomplish the desired result as well, or better, by using one member as had been done in the prior art by using two or more. I do not think the fact that he had in mind merely one member prevents him from saying that his device can not be legally imitated by using two members and thereby producing a device which will work, but the most important features of which are brought about by the use of a heavy spring suspiciously like the spring wedge of Peterson."

The Court of Appeals in its opinion sustaining the decision of the District Court said:

"We regard the Peterson patent for a hinged last with its connecting hore-shoe link and resilient spring in a single element as valid and infringed. It was patentable over the Clausing patent No. 1,085,668, not simply because it embodied a link and spring in a single element, while in the Clausing patent they were separate, but because it was so constructed that it functioned to hold the last firmly when in

its collapsed as well as its extended position, the spring of the Clausing patent functioning to hold the last members firmly only when in their extended position. Although the link and spring of the plaintiff's alleged infringing device may, as to the number of elements involved, more clearly resemble Clausing, nevertheless in its functioning and mode of operation it resembles the Peterson patent, for the connecting spring and the link not only hold the last members in proper relation but hold them firmly in both their extended and in their collapsed positions, as does the Peterson device. The plaintiff by separating the Peterson device into two elements does not escape infringement."

From the foregoing opinions of both courts it appears that the essential feature which was common both to the Peterson patent and to the infringing construction was the one-piece U-shaped or bowed spring connected at its ends to the fore-part and the heel part of the hinged last at points which lie in a line at one side of the fulcrum when the last is extended, and at the other side of the fulcrum when the last is collapsed, thus holding the last firmly in either its extended or its collapsed position.

These were found to be the important features of the connection in the infringing last and it was held that the addition of the rigid link in the infringing last did not avoid infringement. The function of the rigid link in the infringing last was merely to supplement the spring in preventing the separation of the pivot under strains, when the last is in either extreme position, a function performed in the Peterson construction by making the spring itself of sufficient rigidity to withstand all strains.

In the respondent's construction now complained of as an infringement there is no such U-shape or bowed spring nor any spring directly connected to the two hinged parts for holding the last firmly in either of its two extreme positions. The alleged new infringement consists of four parts, a single link 4a pivoted to the fore-part, two links 4b pivoted to the heel part and arranged one at each side of the link 4a, thus providing sliding or telescop-

ing links, and a spirally coiled or rolled-up ribbon spring 4c extending through registering holes in the three links and serving as a yielding connecting pin for uniting the sliding or telescoping links.

The Peterson claims, which are variously phrased but in substance describe essentially the same construction, call for a "longitudinally resilient connecting member" or a resilient connecting member "shaped" to hold the last sections in either extended or collapsed position. These terms correctly describe the bow-shaped spring of the Peterson patent or the bow-shaped spring of the infringing structure, Respondent's Exhibit 1, which in each case is directly connected at its ends to the last sections. But they do not correctly describe the respondent's new construction composed of a spiral or rolled-up ribbon spring uniting the three sliding links. The respondent's spring is not attached to the last sections; nor is it "longitudinally resilient" but transversely resilient; nor is it "shaped" to hold the last sections in their two positions; it functions by its action on the sliding links.

The District Court said in Equity No. 1853, "While I am not prepared to say that it would cover any arrangement of a link and spring, it is my opinion that it does cover the construction used by the Krentler Company" [Respondent's Exhibit 11]. The question in the present case is whether it covers the respondent's new and totally different construction.

In order to construe the Peterson claims broadly enough to cover the respondent's new construction, the claims would have to be interpreted to cover any form of spring hinge connection so mounted as to act at either side of the dead center and thereby to hold the last either in its collapsed position or its extended position.

In my opinion any such broad construction would make the patent cover the prior art. Divided lasts hinged together are very old. From scores of examples reference may be had, by way of illustration, to the following patents showing forms of hinges which not only constitute the pivot between the two sections but prevent their separation:

| | | | |
|---|---|---|---|
| Abbott, | No. 660,321, | October | 23, 1900. |
| Gerrish, | No. 646,144, | March | 27, 1900. |

It is also very old to fulcrum the two sections on a pivot pin which merely serves as an axis on which the sections rock but do not hold the sections together, that function being performed by some other connecting member.

| | | | |
|---|---|---|---|
| Pope, | No. 678,129, | July | 9, 1901. |
| Clausing, | No. 1,107,655, | August | 18, 1914. |
| Clausing, | No. 1,085,668, | February | 3, 1914. |
| Iredale, | No. 692,447, | February | 4, 1902. |

It is also very old to use integral knuckles on which to fulcrum the two sections in place of a pivot pin.

| | | | |
|---|---|---|---|
| Holbrook, | No. 907,693, | December | 22, 1908. |
| Krentler, | No. 764,894, | July | 12, 1904. |
| Carl, | No. 918,506, | April | 20, 1909. |
| Shainsey, | No. 938,903, | November | 2, 1909. |

It is also very old to provide double acting spring hinges by which the last will be held either in contracted position or in extended position.

| | | | |
|---|---|---|---|
| Krentler, | No. 764,894, | July | 12, 1904. |
| Barlow, | No. 568,326, | September | 29, 1896. |
| Pope, | No. 1,202,583, | October | 14, 1916 (filed March 30, 1912). |
| Fitz, | No. 817,966, | April 17, | 1906. |

In view of such patents as those mentioned in the last group, it is obvious that the Peterson claims can be given no such broad construction as to cover all spring hinge connections which are adapted to hold the last either in extended or contracted position.

Nor can the claims be broadly enough construed to cover any and all spring hinge connections which perform this function by acting on the hinged members at either side of the dead center (pivot axis) to hold the hinged members in either of their two extreme positions. This is very old in the art of spring hinges and in view of the hundreds of forms of spring hinges which have been used in hinged lasts, it would certainly be an obvious expedient to any mechanic to substitute any desired form of double

acting spring hinge of the prior art for other spring hinges already used in lasts.

The patent to Bronson 577,593, dated February 23, 1898, shows a double acting spring hinge which could without change be placed in a hinged last and there function to hold the hinged members in either extreme position by acting on either side of the pivot precisely as described in the patent.

Bronson describes the operation of his double acting spring hinge as follows:

> "It will be obvious from Fig. 2 that in the form illustrated in Figs. 1 to 4, inclusive, when the parts are placed in the intermediate position indicated in dotted lines, that is, a position in which the three studs are in line with each other, the spring will have no action on the leaves. As soon, however, as the leaves are moved in either direction the springs will act to either open or close the leaves. For example, if the parts are moved from the intermediate position toward the closed position the spring will act to throw the leaves to the closed position, and if the parts are moved from the intermediate position toward the position shown in full lines, that is, the open position, the spring will instantly act to throw the leaves toward that position, the engagement of stud E with the end of opening F serving in either instance as a stop to limit the movement of the leaves, this opening being preferably made just long enough so that when the leaves are in the closed position stud E will lie at one end of the opening and when at the extreme open position stud E will lie at the other end of the opening.
>
> The shape of the hinge-leaves is of course not of the essence of our invention, but the shape of the leaves may be varied to suit the special requirements of the use to which the hinge is to be placed, nor does it matter so far as the priuciple of our invention is concerned whether the bow of the spring extend in one direction or the other, that is, as in either Figs. 1 or 2."

It is obvious that Bronson, although not mentioning hinged lasts,

had no intention of limiting the use of his spring hinge to any particular article as he states that "the shape of the leaves may be varied to suit the special requirement of the use to which the hinge is to be placed"; and as a matter of fact the Bronson double acting spring hinge could be applied without substantial change to the two hinged members of a shoe last as illustrated in the annexed drawing marked "Respondent's Exhibit 3".

A and B are the hinge leaves of the Bronson double acting spring hinge, fastened to the two sections of a hinged last. H is the bow-spring attached at one end to stud E on the leaf A and at the other end to the stud G on the leaf B. When the last is extended (as shown in Fig. 1) it is held in that position by reason of the fact that a line X through the connecting points E and G lies below the axis of the fulcrum D; and when the last is in collapsed position (as shown in Fig. 2) it is held in that position by reason of the fact that the line X through connecting points E and G lies above the axis of the fulcrum D.

If the Peterson claims be expanded to include any and all forms of link and spring hinges which function to hold the hinged members in either extreme position by stress applied on a line at one side or the other side of the axis (dead center), they would cover only what was old and well known in the prior art.

The Bronson double acting spring resembles the Peterson spring, both in construction and function, much more closely than does the respondent's sliding links with the spirally rolled-up spring connection between the links.

Whatever may be the scope of the Peterson claims they cannot cover Respondent's Exhibit 3 and remain valid. *A fortiori* they cannot in my opinion cover the respondent's construction which is still more remote.

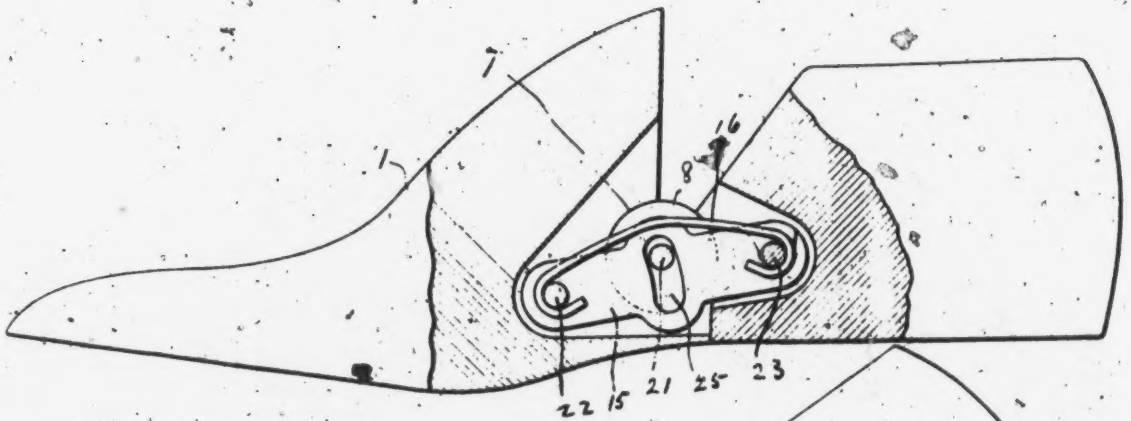
Copies of the patents above referred to are supplied in other pleadings.

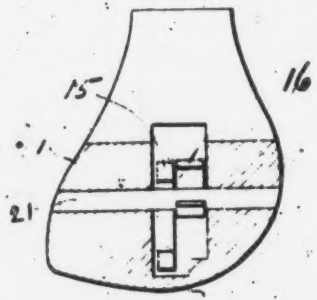
OTTO F. BARTHEL.

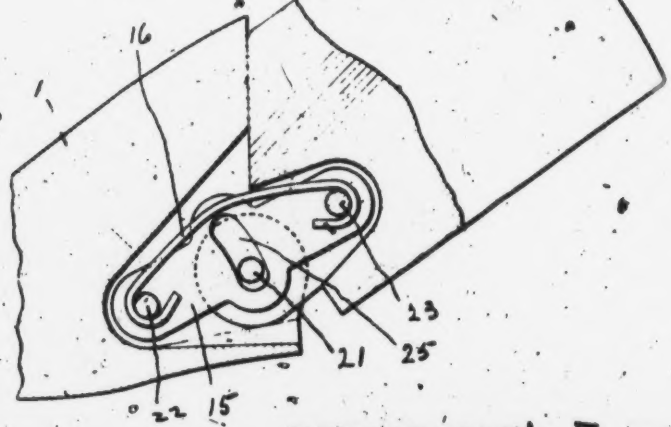
Subscribed and sworn to this fifth day of July, 1929, before me,

GENEVIEVE E. McGRANN,

[SEAL] *Notary Public.*




RESPONDENT'S EXHIBIT 1

FIG. 1

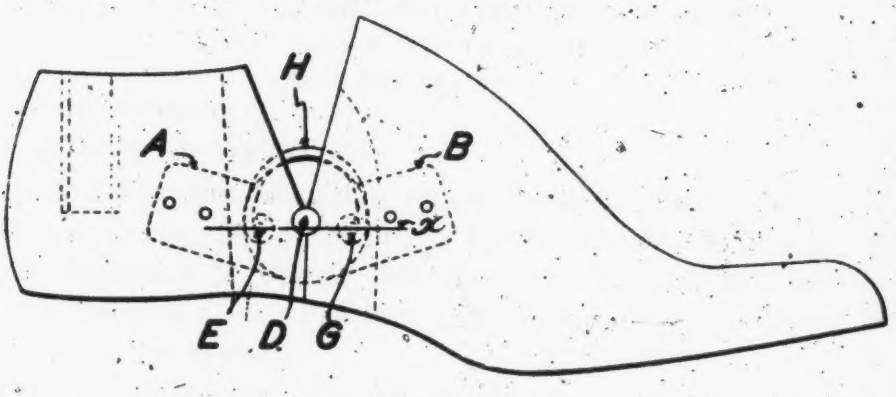
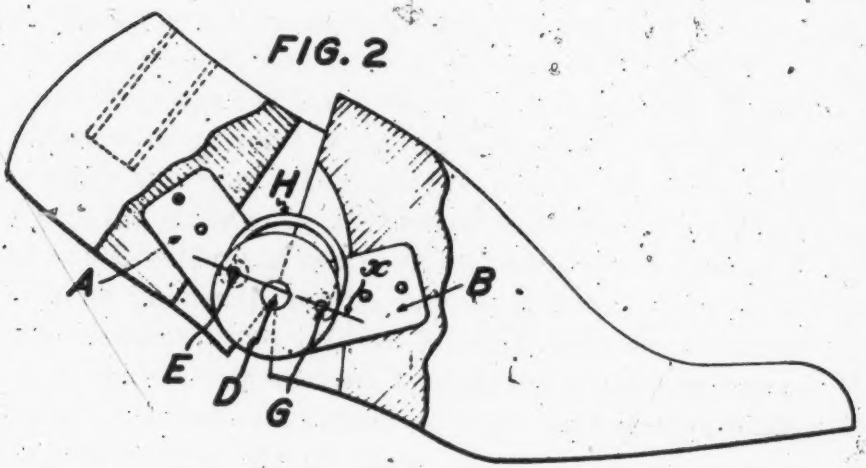
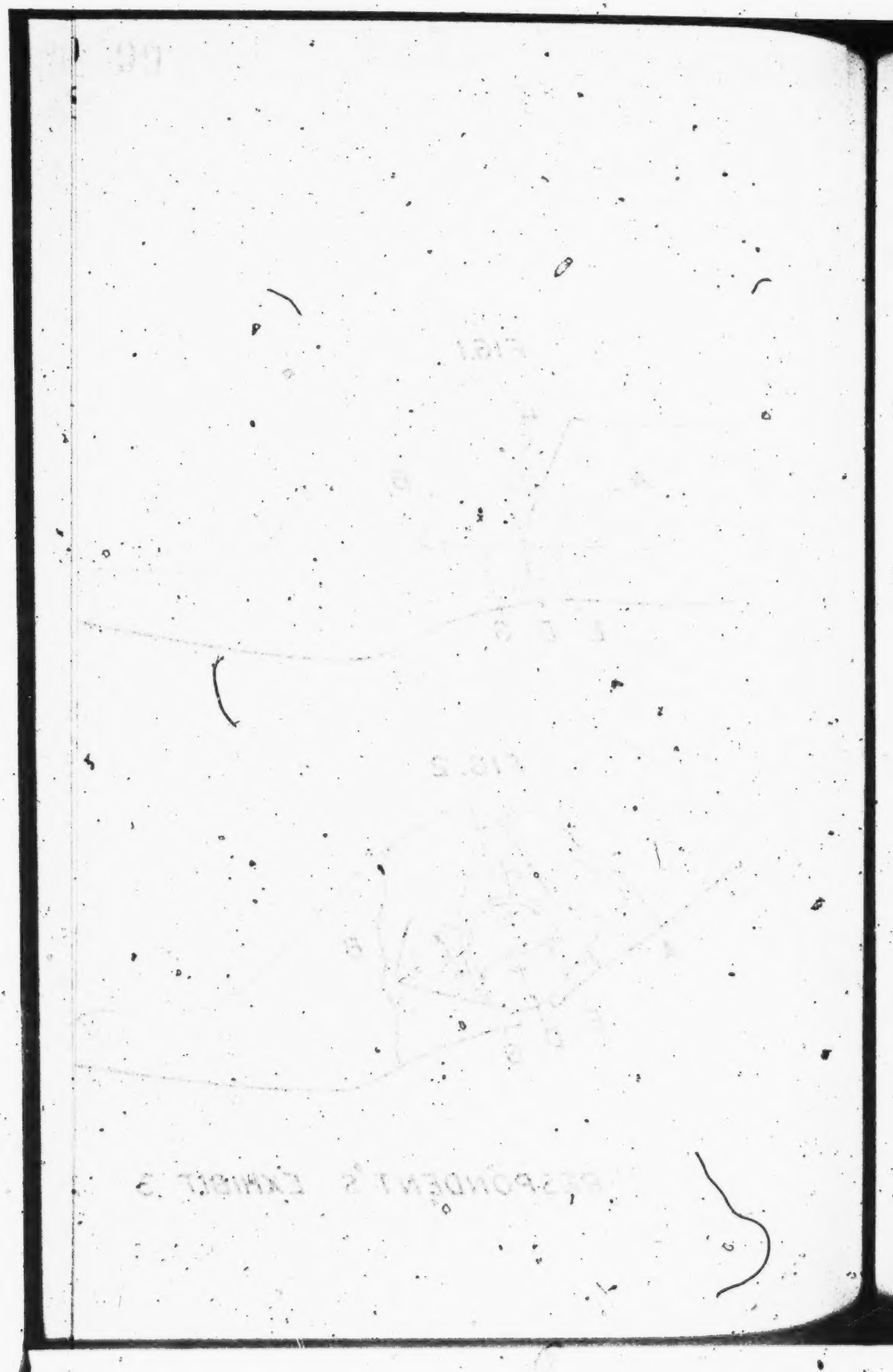



FIG. 2




RESPONDENT'S EXHIBIT 3



[MEMORANDUM. Copy of Respondent's Exhibit 2, United States Letters Patent 1,459,061, is here omitted as copy appears of record in this Transcript of Record among the list of patents hereinafter recorded. JAMES S. ALLEN, *Clerk*.]

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AFFIDAVIT OF LEWIS E. FLANDERS ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY ON SHOW CAUSE ORDER FOR CONTEMPT.

[Filed July 15, 1929.]

STATE OF MICHIGAN,

COUNTY OF WAYNE, SS.

Lewis E. Flanders, being duly sworn, deposes and says:

That he is a member of the firm of Barthel, Flanders & Barthel, Patent Attorneys of Detroit, Michigan, and that he has been actively associated with this firm and its predecessor for more than twenty-five years.

That he is an attorney admitted to practice before the United States courts and in the United States Patent Office, and has been actively engaged in such practice for more than thirty years.

That as a member of said firm he met Mr. E. O. Krentler of the Krentler-Arnold Hinge Last Company of Detroit about fifteen years ago while doing some patent work in which Mr. Krentler was financially interested. That from the time of deponent's first meeting with Mr. Krentler he has handled work from time to time in which said Krentler was interested, and has come to know said Krentler quite intimately, and basing this statement upon such knowledge deponent firmly believes Mr. E. O. Krentler to be an upright and honorable gentleman, a respecter of law and order, and one who would not intentionally do an act such as complained of in this present order to show cause.

That several months ago Mr. E. O. Krentler took up with deponent the matter of securing a patent for a hinge last construction, presenting at that time a hinge for lasts disclosing the invention; that at the time of such disclosure said Krentler also delivered to deponent a copy of the record and decision in *Krentler-Arnold Hinge Last Company* v. *George E. Belcher Co. et al.*, the same being

the injunction which is now declared is being violated by the placing upon the market by the Krentler Company of a hinge last made in accordance with the disclosure to deponent above referred to, and asked deponent whether or not the placing of this last hinge upon the market would be in violation of the injunction. After due consideration deponent advised Krentler that in his opinion there would be no such violation of the injunction, whereupon said Krentler instructed deponent to prepare and file an application for patent covering the construction presented.

The deponent did prepare such application for patent, and the same was duly filed in the United States Patent Office, and that such application has been duly acted upon by the Patent Office, in which action the allowance of a number of claims was indicated, clearly showing the novelty and patentability of the construction, which is clearly shown by a copy of the drawing filed in connection with this application, and which is presented herewith and marked "Respondent's Exhibit Drawing in Krentler Application for Patent".

Further, that this exhibit clearly shows the construction of hinge and last as placed upon the market by the Krentler-Arnold Hinge Last Company and complained of in this action as in violation of the injunction above referred to.

That deponent, in giving his opinion to the effect that the structure as shown in "Respondent's Exhibit Drawing in Krentler Application for Patent", if placed upon the market by said company, would not be in violation of the injunction, based that opinion upon the following:

First, the dissimilarity between the Krentler and Peterson constructions. In appearance or form there is not a single piece or part of the Krentler hinge which is in the last resembles the Peterson hinge. The Krentler hinge comprises three links, one of which is adapted to be pivotally connected at one end to one part of the last and the other two links connected at one end in a like manner to the other part of the last, the links being arranged with one end of the single link in overlapping relation to and interposed between the adjacent ends of the pair of links, the overlap-

ping ends of all of the links being provided with an enlarged transverse opening to receive a spring member. This spring member is formed from a piece of thin flat steel rolled up into tubular form with the edges of the metal overlapped, thus forming a tubular spring coil adapted to contract and expand in a direction transversely of the axis of the spring. This tubular spring, when inserted in the aligned openings in the ends of the links, forms a pivot which provides the sole connection between the overlapping ends of the links.

The Peterson hinge comprises a single inverted U or horse-shoe shaped spring member, having a width vertically or in the direction of the loop or bend, which is several times greater than its thickness, thus providing a spring member, the ends of which are directly pivoted to the opposite last parts and which member is narrow in the direction of the width of the last and yet presents sufficient area to give a spring of high resistance to the movement of its ends away from each other. The Peterson construction does not embody links and the form of the Peterson spring and the action of this spring is entirely different from that of the Krentler spring.

Deponent was of the opinion that the injunction would not be violated, because of the difference in the action of the Krentler coiled tubular spring and the "horse-shoe" or "spring wedge"—the spring of Peterson. It will be noted that in the Krentler construction, shown in Patent Office drawing and marked as an exhibit in connection with this affidavit, the tubular coiled spring is placed under compression within the openings in the ends of the links and when these links are moved relatively in a longitudinal direction by the flexing of the last, this spring is put under further compression, the single link attached to one part of the last exerting a force in one direction upon the spring, and the two links attached to the other last part exerting a force in an opposite direction to compress the spring. In the Peterson construction the spring must necessarily be extended somewhat when it is connected at its ends to the last parts, as otherwise it would exert no force tending to hold the parts of the last together, and

when these parts are turned relatively, this spring is further extended. Therefore, the spring of the Krentler construction is not only entirely different in its form but is also different in its action.

Deponent believed that the Krentler structure did not violate the injunction, because he deduced from the reading of the opinion that the Honorable Judge did not intend to give to the claims of the Peterson patent their very broadest possible interpretation and this belief was based upon the wording of the injunction wherein it is stated that the last rigidity in either its lengthened or collapsed position is brought about by the use of a "horse-shoe link connecting the two parts of the last". Further, in that opinion the similarity between the Krentler construction then claimed to be an infringement and the structure of the Peterson patent was brought out by noting the similarity between the single spring which was then being used by Krentler and the single spring of the Peterson patent, the Peterson spring being described as a "horse-shoe spring wedge". Again in the decision the Peterson spring is referred to as a "horse-shoe link,—merely one member", and further on the Honorable Court states:

> "while I am not prepared to say that it would cover any arrangement of a link and spring, it is my opinion that it does cover the construction used by the Krentler Company".

The opinion also states:

> "but it seems to me that the important part of the (Krentler) device is the spring and not the link. I am of the opinion, therefore, that the Krentler last as used with one strong *U-shaped spring*, although used in connection with a link, is an infringement of the Peterson patent."

These phrases led deponent to believe that the single spring used at that time by Krentler and the shape of that spring, which was similar to the Peterson spring, were the points stressed by the decision and the features which led to the final conclusion. Again quoting from the decision:

"It is true that he (Peterson) had in mind only one member, and the peculiar advantage of this device lies in that very fact, that he could accomplish the desired result as well, or better, by using one member as had been done in the prior art by using two or more. I do not think the fact that he had in mind merely one member prevents him from saying that his device cannot be legally imitated by using two members and therefore producing a device which will work, but the most important features of which are brought about by the use of a heavy spring suspiciously like the spring wedge of Peterson."

Deponent further believed that the Krentler structure did not violate the injunction, because it would be necessary to give the claims of the Peterson patent a very broad interpretation, as otherwise they would not read upon the Krentler structure, and it is believed that the art prior to Peterson was such as to materially restrict the claims of the Peterson patent.

Considering the combination of elements as set forth, for example, in Claim 1, we find that it was very common in the prior art to provide a last construction having a fore-part and a heel part capable of swinging movement relative to the fore-part, such construction being shown in the patent to Pope No. 678,129 of July 9, 1901; Holbrook 907,693 of December 22, 1908; Clausing No. 1,085,668 of February 3, 1914; Krentler 1,094,153, and others.

In the Peterson construction, the axis of turning movement is provided by a pin forming the surface upon which the opposite part rocks but which pin does not serve as a hinge pintle to positively connect the two parts of the last, but permits a separation of the parts with the pin in place. This form of knuckle was not new, neither was the form which was later adopted by Peterson and employed in the present and former Krentler constructions where one of the last parts is formed with an integral circular projection adapted to seat and rock within a socket or recess in the other part, the parts being unconnected by a pivot pin and thus free to separate, all as shown in the several patents above referred to.

With the construction in which the last parts are free to separate, it is necessary to provide some means for retaining the parts against separation under pressure upon the last and this has been accomplished in many different ways, as in Krentler No. 764,894, of July 12, 1904; Carl 918,506 of April 20, 1909, and many others, each providing some form of connection for the purpose. Instances may be cited, as in St. Amand No. 731,390 of June 16, 1903, where actual hinges were used.

Krentler No. 1,094,153 of April 22, 1914 is another instance in the prior art in which the fore-part and the heel part of the last are arranged to rock one upon the other but free to separate, as in the Peterson construction. This patent also shows a connecting device or hinge mechanism arranged to strongly resist the collapsing of the last when in extended position and operating to hold yieldingly the last parts when in collapsed position. This is accomplished by what may be termed a pair of links pivotally connected together at their adjacent ends and secured at their opposite ends to the respective heel and toe portions of the last. These link members are so arranged, relative to the axis of turning movement of the heel part upon the toe part, that when the last parts are so turned a line passing through the two points of connection of the links to the last parts will pass from one side to the other of this axis upon which the toe part turns relative to the heel part. A spring is embodied in the structure to exert a strong yielding force upon the opposed link member, the end of which is carried beyond the pivot connecting the adjacent ends of the two links so that the spring carried by the other link engaging this extended end will exert a heavy pressure thereon to resist the collapsing of the last when in extended position and to hold yieldingly the last in collapsed position. In this structure we have all of the features of the Peterson structure in that the same form of hinge last is employed, also in that the heel and toe parts of the last are connected in a manner to resist separation of the parts. Further the connection is resilient in the direction of its length and is shaped to hold the parts yieldingly in either ex-

tended or collapsed position, as specified in Claim 1 of the Peterson patent.

The function and operation of this Krentler structure shown in patent No. 1,094,153 are the same as the function and operation of the Peterson patent, the problem of being able to break or collapse the last and have it stay in broken position having been solved by this structure as was also the problem of the snap action of the connecting hinge, or the passing from side to side of the axis.

It is also stated that the Belcher Company, employer of Peterson at the time of the Peterson application for patent, was the licensee of the Krentler-Arnold Hinge Last Company, and that therefore Peterson and the Belcher Company were fully informed as to the construction and operation of the device shown in this patent No. 1,094,153, said Belcher Company having bought from Krentler and used many thousands of this type of hinge prior to the filing of the Peterson application. The functions all being well known to Peterson, all he did was to provide a new way of utilizing them, just the same as Krentler has done in devising the construction now complained of by complainant—complainant, at this late date, now coming before this Honorable Court with the contention that Peterson was the originator of a last construction embodying these several functions.

It is believed, therefore, that it cannot be contended that the Peterson patent discloses any new function, although there may be novelty in the specific construction of the Peterson hinge in that, as stated in the decision rendered by this Honorable Court, there was invention and novelty in the simple structure embodying a single horse-shoe or U-shaped spring by means of which the several results accomplished by the structure shown in the early Krentler patent No. 1,094,153 were secured.

It was, therefore, not new with Peterson to provide a hinge last with a hinge connection or with a hinge per se, the hinge idea having been employed in the last art, and therefore Peterson or any other person could not introduce a specific form of hinge which was old into the hinged-last art and claim that combination

as new, because a form of hinge had already been used in that combination. Therefore we should refer to the art of hinges in an endeavor to find the specific form of hinge employed by Peterson, for if the Peterson hinge in its broadest aspects can be found in the prior art, then the Peterson claims must be limited to the specific difference between his hinge and the hinge of the prior art. In this prior hinge art we find, among many others, the patent to Bronson & Bronson No. 577,593, of February 23, 1897. This patent discloses a pair of hinge leaves connected by a pintle and including a spring of the bow type with its opposite ends connected to the two leaves respectively, the connection being such that a line connecting the two spring pivots will pass from side to side of the hinge axis when the leaves are turned relatively, and thus exert a force to hold the leaves in either position to which they are turned. This spring of the Bronson patent therefore acts exactly the same as the spring of the Peterson patent and it is of substantially the same shape as the Peterson spring.

An examination of the shoe-tree art, which is closely related to that of the hinged-last art, further discloses a number of structures embodying a bow spring. In this connection attention is called particularly to patent to Noyes No. 795,854, of August 1, 1905, which patent shows a spring and link connection between the fore-part and the heel part of the shoe tree. The spring is of U shape and is provided with eyes at its ends for pivotal connection to the ends of links, the opposite ends of which links are pivotally connected to the fore-part and heel part respectively. The arrangement of this connection is such that the spring acts to yieldingly connect the parts and the links are so arranged as to swing from side to side of a line connecting their points of pivotal connection to the heel and toe parts. A person having before him the old and well-known hinged last would need to exercise only ordinary mechanical skill in order to apply the Noyes connecting link and spring to such an old form of last or even to conceive of eliminating the links and pivotally connecting the ends of the U spring directly to the heel and toe parts of the last with such connection so arranged, as in Noyes, relative to the knuckle axis, as

to secure the action of throwing from side to side of this axis, of the spring pintles when the last parts are turned one upon the other for the purpose of yieldingly holding these parts in either position to which they may be turned.

Deponent further states and believes that a complete survey of that field of the art in which the Peterson patent is found will clearly show that no new function was developed by Peterson or new result secured, but that what Peterson did do was to provide a new way for obtaining these ends, which way resided in the form of spring devised by him. Deponent further states that this sketchy presentation of the prior art is sufficient to raise a reasonable doubt as to the Peterson claims being of such scope as to cover the present Krentler device which has no structural resemblance whatever to that of Peterson or to the former Krentler structure declared to be an infringement, and submits that, whatever the ultimate decision may be, Krentler, in all fairness and equity, should be given full opportunity to present any and all defenses which he may have relative to the present structure and which defenses could not have been presented in the prior suit, due to the wide difference between his present structure and the structure which was held to be an infringement.

All of the patents referred to herein are referred to in the affidavits of E. O. Krentler and Horace G. Seitz, submitted in this present cause, and copies of these patents will be found in connection with these affidavits.

And further deponent sayeth not.

LEWIS E. FLANDERS.

Sworn to and subscribed before me this fifth day of July, 1929.

ANNA M. DORR,

[SEAL] *Notary Public.*

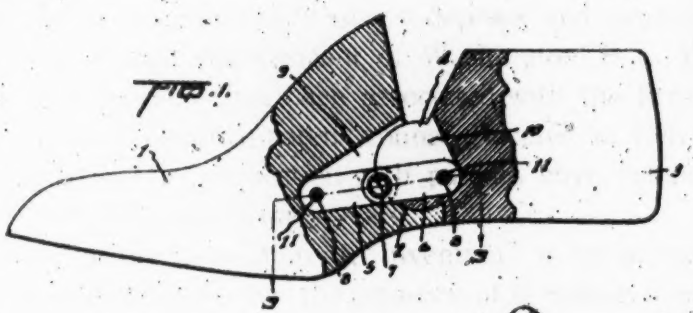


Fig. 1.

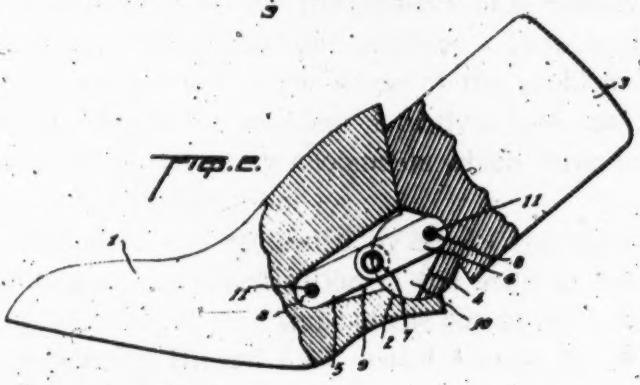


Fig. 2.

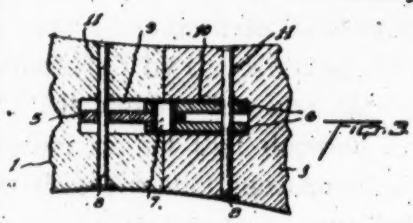


Fig. 3.

Respondent's Exhibit

"Drawing in Krentler Application for Patent."

Inventor
Walter A. Krentler

By Kapteyn & Kapteyn

Attorney

CAT

## AFFIDAVIT OF HORACE G. SEITZ, ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY ON SHOW CAUSE ORDER FOR CONTEMPT.

[Filed July 15, 1929.]

CITY OF WASHINGTON,
DISTRICT OF COLUMBIA, SS.

Horace G. Seitz, being first duly sworn, deposes and says, that he is sixty years of age, and resident of Washington, D. C., that for the past ten years he has been associated with the firm of Barthel, Flanders & Barthel, patent counsel, located in Detroit, and that his activities in connection with patents have extended for a period of approximately forty years.

That he believes the foundation of "invention" is to be found in the solution of problems—that the presence of invention is indicated by the presence of at least one problem. That the scope of the invention is determined by the scope of the problem solved, and that the isolation of the problem actually solved can be had by an examination of the art developments which have preceded the invention under examination.

That this deponent was requested by one of the members of the said firm to make an investigation of the state of the art as bearing upon the scope of the claims of the patent to O. A. Peterson, No. 1,195,266, for Hinged Last, issued August 22, 1916, and which patent has been declared valid and infringed by a structure then marketed by the Krentler-Arnold Hinge Last Company, of Detroit, Michigan. The investigation also included the question of whether or not that decision applied to a certain structure marketed by Krentler subsequent to said suit.

The various factors to be considered were such as to require an extensive and careful investigation, during which the file records of the Peterson application—as well as many others—were examined, with a view to obtaining a complete picture of the setting within which the Peterson invention must be found, in order that the rights of the respective parties under the new conditions brought about by the later Krentler development might be clearly determined.

In an interference proceeding in which the Peterson patent was involved as shown by the file wrapper thereof, Peterson's date of conception was set in his preliminary statement as in 1913, and in developing the setting in which the Peterson patent occurs this deponent used this as a date beyond which Peterson could not go, because of his sworn statement to that effect.

Examining the Peterson disclosure and the art which preceded it, it is seen that the last itself is of a common type, involving a fore-part and a heel part, these being fashioned with coacting faces such as to permit them to be rocked relatively on a common axis, the axis being above the breast of the last, and permitted by cutting away an angular portion above such axis in Fig. 1 of Peterson. To provide an efficient axis, the parts are arranged so that a pin 10 actually forms the surface on which the rocking takes place, this pin, however, not serving as a hinge to connect the two parts, the latter being free to be separated with the pin in place. This arrangement is a common one in the art, as shown, for instance, in the patent to Pope, 678,129; Holbrook, 907,693; Clausing, 1,107,655, and Clausing, 1,085,668.

It is understood that at a later date the commercial form of last of Peterson was changed from that illustrated in the Peterson drawing, the change being that of making the pin 10 an integral part of the fore-part or the heel part and increasing the dimensions, this also being a common expedient and well known at the time; Krentler, 764,894; Carl, 918,506; Krentler, 1,094,153, and a number of others, illustrate this change, as does Holbrook, referred to.

It is obvious, of course, that with two parts separable in this way, some means must be provided to retain them against separation, and each of the patents referred to above provide some form of connection to provide movements similar to those of a hinge—the reason for the name of this class of lasts.

In some instances actual hinges are used. St. Amand, 731,390, is an instance of this type, as are also Decker, 661,397; Arnold, 640,076; Burns, 622,941; Butterick, 640,361; Tannert, 653,537, and a number of others. Some have anchored the hinge

pintle in one of the parts, and then provided the other part with a metallic member which is pivoted on the pintle—Thurrell, 873,635, will illustrate this type; Barlow, 568,326, is another illustration. Pope, 1,202,583, illustrates another form.

The numerous instances illustrating substantially the same type of last indicates the solving of a basic problem in the same general way and by generally similar means long prior to Peterson.

It was found that the use of a two-part hinged last presented a new problem, one subordinate to the original broad problem. During the sole lasting operation the heel and fore-parts of the last are independently supported, but pressure applied on the forepart beyond its support tends to rock it upon its support and turn it upon its pivotal connection with the heel part. A new problem was therefore presented in finding a way to prevent such rocking during the sole lasting operation and permit such rocking action when it was desired to remove the last from the shoe. Many ways of solving this problem have been developed. An early method was to insert a block within the V-cut in the last above its hinge. Later came the idea of providing a pivoted latch between the two parts, and this developed into a toggle connection; Tyler, 601,622, is an early illustration, and other forms are shown in Clark, 612,481, and Niles, 785,115. These forms were not a part of the hinge structure *per se*.

Another development along this line was the yielding pin type wherein the parts were so arranged that the pressures applied in service would not shift the pin. Tannert, 653,537, and Abbott, 660,321, are illustrations, as is also Pope, 1,202,583, and Thompson, 638,297. These illustrations show that this particular problem was seen and efforts made to meet it, and they lead in the direction of a further development as where the last was yieldingly locked in its collapsed position, ready for inserting in another upper. Illustrations of the use of springs alone in this connection are found in Burns, 622,941; Butterick, 640,361; Goding, 614,461; Gerrish, 646,144, and Schelter, 845,012.

It will be understood that where a spring structure is employed to hold the last expanded, as in Burns, 622,941, and a number of

other disclosures, the power of the spring increases, as the members of the last are moved to collapsed position, and thus forces the operative to exert increasing power during the collapsing movement. This was early appreciated in the English patent to Lewis et al., No. 15,207 of 1906, where the structure was arranged so that, in the collapsed position, the spring pressure was no greater than in the expanded position, and less during the collapsing movements.

The art further discloses, as in the English patent to Lant and Lant, No. 22,708 of 1912, a spring supporting one of the members of a locking structure both in the expanded and collapsed position of the last members, so that the members are held rigid, although yieldable under excess pressure, when in expanded position, and the position of the parts is such that the spring holds the parts in collapsed position through frictional engagement of the locking members. The spring exerting pressure to maintain the parts in their opposite positions. This same broad idea was presented in the Krentler disclosure (764,894) wherein the two members are yieldingly locked in both extended and collapsed positions, a spring plunger co-operating with two of the sides of an angle to produce this result. As pointed out in the Krentler specification, the arrangement provides for an increase of pressure of the spring as the members are moved away from either of their limit positions, until a mid-point is reached, whereupon the pressure decreases, a condition which causes the spring to aid in shifting the member during the latter part of the movement.

Clausing, 1,085,668, February 3, 1914 (cited against claims of the Peterson application), produces the general broad result in a different way. He employs the spring for permitting yielding of the last in its extended position while holding the last in such position, but, in addition, utilizes the principle of shifting one end of a connecting link from one side to the other of a line passing through the center of pivotal movement of one last part relative to the other and the center of the pintle of the other end of the link. The link not only holds the parts against other than a

limited separation, but also acts to produce a frictional effect for holding the last in collapsed position. (See line 5 *et seq.* of page 2 of the Clausing specification.) The idea, basically, however, reaches back much farther than either of the above disclosures, being found in the disclosure of Barlow, 568,326, *supra*.

In Fitz, 817,966, this double locking is provided, and by slightly shifting the position of his spring so that in the collapsed position the spring would pass to the opposite side of the line of the hinging action, the last parts would be held in collapsed position by the pressure of the spring. Other ways of producing the result are disclosed, Fitz, 719,318, showing various ways of holding the members in any desired position by the use of friction, and Redin, 999,872, shows a modified arrangement of Tyler, 601,622, where a movement of the toggle pivot beyond the line which connects the end pivots prevents collapse of the members of the last, and the toggle must be shifted before the last can be collapsed. Many other ways of meeting the various problems are disclosed in the prior art, and an examination of this art clearly indicates the fact that the last art was developed to keep step with the development of machinery used in fabricating shoes. Shoe machinery was not developed around the last construction. Lasts were essential, and in the continuous development of shoe making machinery last changes were made necessary thereby, last makers making independent developments which have built up the large last art found.

In presenting the above picture, the purpose has been to follow the developments along the lines of the Peterson disclosure, and this was done to disclose the particular setting for and circumstances under which the Peterson patent was developed that limiting patents, suggestions and teachings might be found, and their bearing upon the scope of that patent ascertained.

In this picture, which presents a sketchy setting of the prior art at the time of the Peterson development, it is seen that the way of solving the main problem in connection with lasts for use with shoe machinery was to provide a hinge connection which is in the form of the common type of hinge with its knuckles and pintle as is, as in Carl, 918,506, where the last members them-

selves form the leaves of the hinge; such modifications of the general hinge idea are presented, in that the actual pintle is omitted and other means employed to preserve the alinement of the knuckle formations, as in Clausing, for instance, where excessive pressure would tend to force the last members in a pivot-separating direction, the general trend being toward additional safety factors.

It is obvious therefore that a search is not complete which is confined to the direct hinge last art. Prior hinge structures *per se* should be considered, for a hinge structure used to solve a hinge problem in one place would obviously solve the same problem in a different setting; this condition forming the basis for the doctrine of double or analogous use, found in the decisions of the courts. It may be that changes are required in the earlier structure to make it applicable to its new environment, but this does not change the conditions with respect to the double or analogous use, so far as the monopoly is concerned. One who has varied a structure in order to place it within a different setting, cannot prevent another from using the original structure without variation in the new setting or if varied in a different way. The monopoly extends to the adaptation of the early structure and not its adoption, and therefore cannot include something which is not disclosed, taught or suggested by the one claiming the monopoly. See *Crown Cork and Seal Co.* v. *Sterling Cork and Seal Co.*, 217 Fed. Rep. 381.

Because of these conditions, the search was extended into the hinge art *per se*, where the monopoly resides in the hinge structure without regard to the setting in which it is used, and in this way corresponds to the general class of mechanical movements presented in the decision above referred to.

Among a large number of patents considered appears the patent to Bronson & Bronson, No. 577,593, which is for a spring hinge constructure *per se*, and discloses a pair of hinge leaves connected by a pintle providing the characteristics of a thin hinge structure of ordinary type, to which has been added a spring designed to provide a certain action in connection with the hinge.

The spring is of the bow or horseshoe type, with its opposite ends connected to the two leaves in such relation thereto that a line connecting the two spring pintles will pass from one side to the other of the hinge axis when the leaves are moved from open to closed positions, the spring pintles travelling in the arc of a circle during such movement. An object of the invention as set forth in the patent is that the spring will act to throw the leaves of the hinge either to the open or to the closed positions or to both the open and the closed positions, depending upon which side of a dead-center the leaves are carried. This double-throw characteristic was very common prior to the Bronson development as evidenced in Mohr, 236,689, and Hart, 431,349, and in each of them is this characteristic of a member shifting from one side to the other of a dead-center position for the purpose of retaining the members connected by the hinge structure, in either of two limiting positions.

The patent to Bronson is of value in this picture of the prior art because it is a structure that could be readily utilized within the dimensions of the last, and because of its suggestive value in the direction of the Peterson development. It is quite feasible to apply the leaves within the space of the last slit, as the prior art indicates can be done with hinge leaves, or the two leaves can be considered as representing the fore and heel last members provided with the knuckle formation as in Carl or others. It is quite clear that the structure could be applied to Carl, as where an actual pintle is employed to hold the parts together.

The distinction between the Bronson structure and Peterson, broadly, is the distinction that is found between Carl and Clausing, for instance; Carl as in Bronson, while Clausing omits that pintle as does Peterson. It is clear that the public has the right to employ the Bronson hinge as the connection for the Carl last members, and it follows that the Clausing last members could be used and connected by the Bronson hinge, the spring of Peterson being substituted for the link and spring of Clausing with its ends secured to the pintles *e* and *e'* of Clausing, these being in the position of the pintles of Bronson, relative to the axis of last member

movement. Such mere substitution clearly shows the teaching of the prior art and how the Peterson patent is hedged about and must be limited in its scope if valid. All of the elements of the Peterson patent are present and operate in the same manner; it is thus only a question of the spring resistance of Bronson. During the trial of the case above referred to, it was shown that the Krentler structure then in question utilized a spring similar to Bronson, and that there was a looseness between the last parts due to the weakness of the spring, but that Krentler employed a tie link which prevented complete separation, but that the spring permitting this separation to the extent permitted by the tie member.

From the above the nature and extent of the Peterson invention may be understood. Peterson found a way in which to employ the Bronson spring within the Clausing last structure, and retain the members thereof against separation, and he did this by using a particular formation and cross section of spring disclosed in his application, devising a single bow or horseshoe member which is of high yielding resistance, and yet capable of yielding sufficiently so that one of its spring ends may travel in the necessary arc in moving from one side to the other of the pivot line. Peterson's spring was no change from the Bronson idea or operation—the Peterson contribution was that of so changing the cross-section of the Bronson spring as to give the necessary resistance, the general way being to increase the width of the spring laterally, as for instance in the Hart disclosure, but such increased width would necessitate increasing the receiving space, and weaken the last. Peterson was not the first to prevent separation of the last members of the type of Clausing. Iredale, No. 692,447, had secured this result by his plate members; and Shainsey, 938,903, had utilized a different way for doing the same thing. Peterson did not solve the problem of retaining the members against separation, but what Peterson solved in the way of a problem was, how to apply the Bronson hinge to a last of the Clausing type, rather than to that of the Carl type. It is evident that this difficulty of too free a separation in the Bronson spring could be lim-

ited by adding the Clausing link, and the combined structure would be a substitution of the Bronson spring for that of Clausing, securing the benefits of the Bronson action, and such combination would not come within the Peterson monopoly, since Peterson utilizes a different way of applying the Bronson spring to the Clausing last.

Peterson cannot contend that by his change he has solved the problem of yieldingly holding the last members in their limit positions while maintaining a yieldable connection between the members. This particular problem had been solved in both the early Krentler patent referred to and in the English patent to Lant.

And the conclusions above reached relative to the limits of the Peterson domain appear to be clearly substantiated when considered under the doctrine outlined in the Crown *v.* Sterling decision above referred to. As can be readily seen, Krentler, in his patent No. 764,894, has found the essence of his locking means in the disclosure of the patent to Muller and Wolf, No. 267,448, November 14, 1882, thus adopting one form of double-acting spring-supported structure from the hinge art, and utilizing the teachings of that art in producing his last construction. Peterson has also gone to the hinge art and adopted the Bronson disclosure as the basis of his development. There is thus set up the conditions found as the basis of the decision of the court in the Crown *v.* Sterling decision.

One cannot avoid the conditions set up in the Crown *v.* Sterling decision by claiming the characteristics rather than the physical structure. For instrnce, Peterson claim 1, excepting for its expression of the fore-part and heel part of a hinged last, presents the characteristics found in the Bronson disclosure, the claim thus expressing practically "the use of the Bronson hinge connection as the hinge connection of a hinge last", because the Bronson connection will produce the action called for by the claim when applied to the Carl or Clausing type of last. The claim thus simply sets forth the adoption of the Bronson hinge connection into the hinge-last art. Under the decision referred to, the domain of

the Peterson monopoly must be found within the limits of his adaptation of the Bronson structure within the hinge-last art,—the inventive changes made in the Bronson structure which permitted the Bronson idea to be utilized in this particular art.

It is further obvious that the domain of Peterson cannot include any structure which differs in type from that of Bronson, since the Peterson teaching bears only on the Bronson type of connection. The spring hinge art is open to any one for selection of a type of connection to be employed in the hinge-last art, this doctrine being clearly pointed out in the decision referred to, and Peterson cannot close this door of opportunity. Neither can he close the door of opportunity to one who developed a new form of hinge connection for the purpose.

The shoe-tree art (structures having last characteristic) also presents a number of structures which are suggestive in considering the prior art which defines and limits the Peterson disclosure. See Yapp, 525,934, also English patent to Jackson, 11,421 of 1897, and more particularly two patents to Noyes, Nos. 675,012 and 795,854. These are a few of a considerable number which may be considered in this connection.

Referring to the Noyes patent No. 795,854, it will be seen that this patent embodies all of the characteristics of the Peterson patent, with the exception that it is not a shoe last where the heel and toe parts are connected by a knuckle to turn relatively, but as this form of last was very common when Peterson devised his construction it seems clear that one having the Noyes hinge connection to the old form of last. The shoe-tree art is certainly closely related to the last art. It will also be noted that the Noyes hinge connection embodies a U or horse-shoe shaped spring, the free ends of which are connected by links to the fore-part and heel part of the shoe tree, the links being so arranged that they swing from one side to the other past a line connecting their points of pivotal connection to the shoe-tree parts. When the shoe tree is in place within the shoe the spring exerts a yielding force in the direction of the length of the links and thus exerts a pressure tending to separate the heel and toe part.

In the Peterson patent the tension of the spring is reversed in order to hold the heel and toe parts in contact, but it will be noted that in the present Krentler construction which is claimed to be a violation of the injunction, the spring which in that case is a coiled spring formed of a width of spring steel coiled upon itself with the edge portion overlapped exerts an expansive force, or in other words is compressed when the heel and toe parts of the last are in operative position. All that Peterson did was to take the spring of Noyes and connect the eyes in its ends to the heel and toe part of the common form of last by means of suitable pivot pins so located as to give the snapping past center line action disclosed by Noyes, except, of course, that Peterson made his spring of such configuration and strength as necessary for the purpose, at the same time permitting connecting the ends of the spring directly to the heel and toe parts of the last. This is the setting within the prior art in which we find the Peterson patent, and it is clear that it becomes necessary to ignore this setting in order to give to the Peterson claims an interpretation which will bring the present Krentler construction within their terms.

The present deposition is being prepared for use as evidence to be used in connection with the response to an action designed to extend the judgment heretofore rendered in favor of the Peterson patent to include a structure not before the court during the trial of the earlier cause referred to above. And it is designed to present to the court an outline of the development of the prior art as found by deponent during his search, the lines along which the investigation was made, and the principles of patent law which were considered in pursuing the investigation, and conclusions reached from a consideration of the art developed by the search.

And further deponent sayeth not.

HORACE G. SEITZ.

Sworn to and subscribed before me this fifth day of July, 1929.

MILTON E. LOWRY,

[SEAL] *Notary Public.*

AFFIDAVIT OF ALFRED H. PETERSON ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY ON SHOW CAUSE ORDER FOR CONTEMPT.

[Filed July 15, 1929.]

Alfred H. Peterson, being duly sworn, states as follows:

I am president of Peterson Spring Company of Detroit, Michigan, engaged in the manufacture of flat and coil springs.

We make the spring links for Krentler-Arnold Hinge Last Company, and have done so for two years.

We have made about fifty thousand of the spring link shown and illustrated in the patent to Walter A. Krentler, No. 1,094,153, known in the trade as the B-B or ball bearing hinge last.

We are now engaged in making the sliding spring link, being the device which, I am informed, Krentler-Arnold Hinge Last Company is now charged with infringing the Peterson patent No. 1,195,266.

In September, 1927 we were given our first order for quantity production of the new sliding spring link. Before this order was given, we were instructed in its design and principle of operation, and thereupon made up a number of samples averaging about ten a week over a period of about two months, and tested them to determine the proper stock of steel to use in the flat pieces, the proper stock of steel to use in the flat spring, the diameter of the holes through which the pins were inserted, and the best and most efficient diameter of the central holes into which the flat spring is inserted and other matters of production.

We found that for the flat link pieces we could employ No. 4 hard rolled low carbon strip steel, which is the hardest low carbon stock available, and for the flat spring we found that we can use blue tempered Swedish clock spring steel, which is of high tensile strength and resiliency and has a very smooth surface, whereby the overlapping spring end meets with as little friction as possible during the contraction of the spring when the link is extended.

This new sliding spring link was tested many times at our plant in a Tines Olson tensile test machine, and before it gave way it

stood a strain of three thousand pounds. After this strain was increased, the pins bent or the metal around the holes through which the pins passed broke or gave way under the strain. The Swedish clock spring steel in the sliding link neither broke nor lost its resiliency in any degree. In all these tests it successfully withstood a tensile strain of three thousand pounds without set.

In these tests a fixture was made adapted to the Tines Olson testing machine, in which a last was placed under analogous conditions of strain and pressure to which it would be subjected in a shoe factory under the application thereto of a leveling machine. At its weakest point the last equipped with the sliding link withstood a pressure of fifteen hundred pounds, at which point the wood of the last itself broke, but without injury to the link. Three lasts of other manufacturers were tested and their hinge links gave way at less than one-half that pressure.

The links of other manufacturers were tested for tensile strength and they all gave way under less than one-half the strain of three thousand pounds successfully borne by the sliding link.

The strength of this sliding link enabled the use of such increased pressure on the lasts that it was found necessary to replace the pins formerly used with pins of harder steel.

We make the new sliding spring links to stand a normal strain of one thousand pounds. This is the strain exerted in holding the last in either its extended or collapsed position, and we make the spring to increase to two thousand pounds tensile strain during the extension of the link in passing over the axis of revolution of the parts of the last, with a margin of safety up to twenty-five hundred pounds before there is any probability of the link parts breaking down.

In our experience, the sliding spring link employs entirely new use for a flat spring as a connecting pin and as a means of providing resiliency between the members connected. We were astounded when the first samples were made to find the enormous tensile strength of this simple device, providing, as it does, at the same time, sufficient resiliency to allow the link to be extended in

its movement over the center of the axis of revolution of the heel and fore-parts of the last.

The new sliding spring link is much stronger than the ball-bearing link of the Krentler patent No. 1,094,153, because the link parts are made of the hardest steel, while in the Krentler patent one of the link parts is a stamping and necessarily of softer steel to take the form when pressed. The latter link will withstand tensile strains of no more than nine hundred pounds owing to the use of the softer material in the stamped portion of the link. The new sliding link is also a less expensive commercial production article having less expensive material and capable of being made and assembled with less labor.

In the new sliding link, the fact that the strain is on the straight grain of the steel and is exerted along the line of the grain of the metal contributes very materially to the strength of this form of link.

ALFRED H. PETERSON.

Subscribed and sworn to before me this second day of July, 1929.

GENEVIEVE E. MCSWAIN,
*Notary Public, Wayne County, Michigan.*

(No Model.)

J. A. MOHR.

Door Spring.

No. 236,689. Patented Jan. 18, 1881.

Fig. 1.

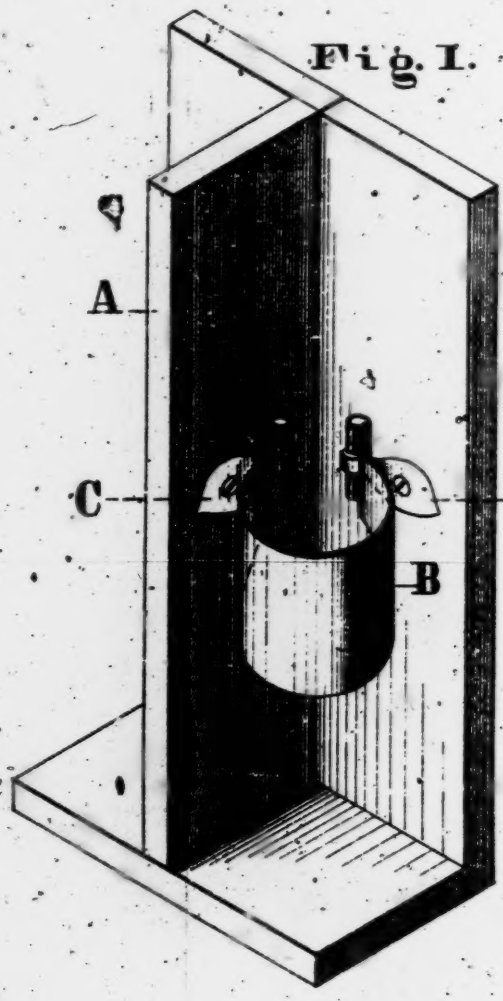



Fig. 2.

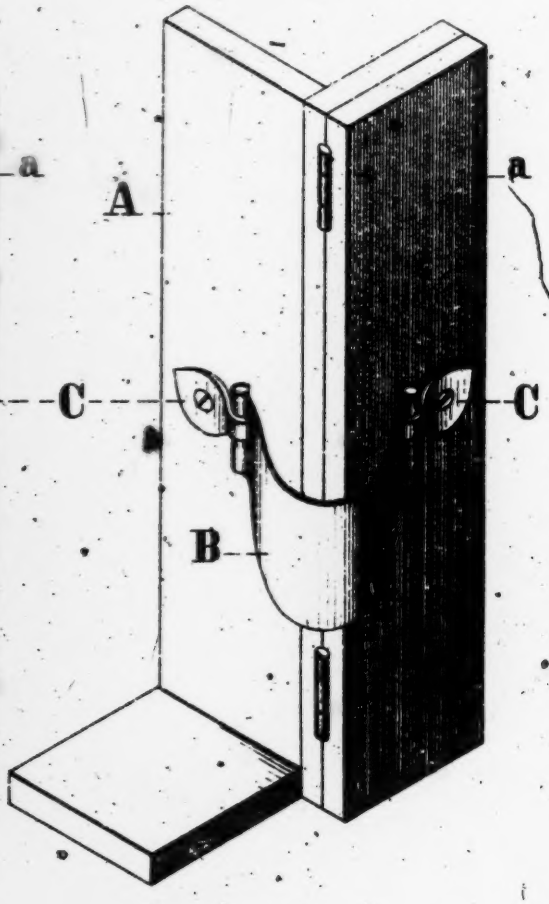



Fig. 3.

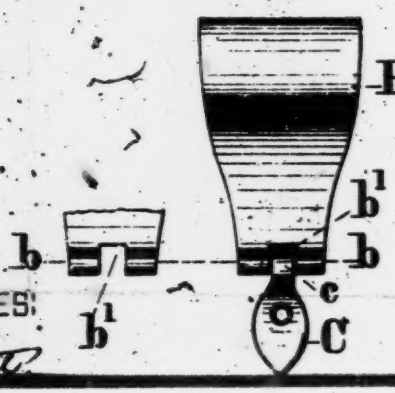
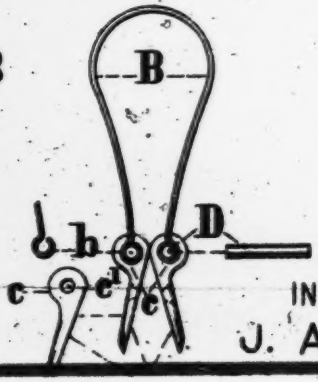



Fig. 4




WITNESSES:

INVENTOR:

J. A. MOHR,

Fig. 1.

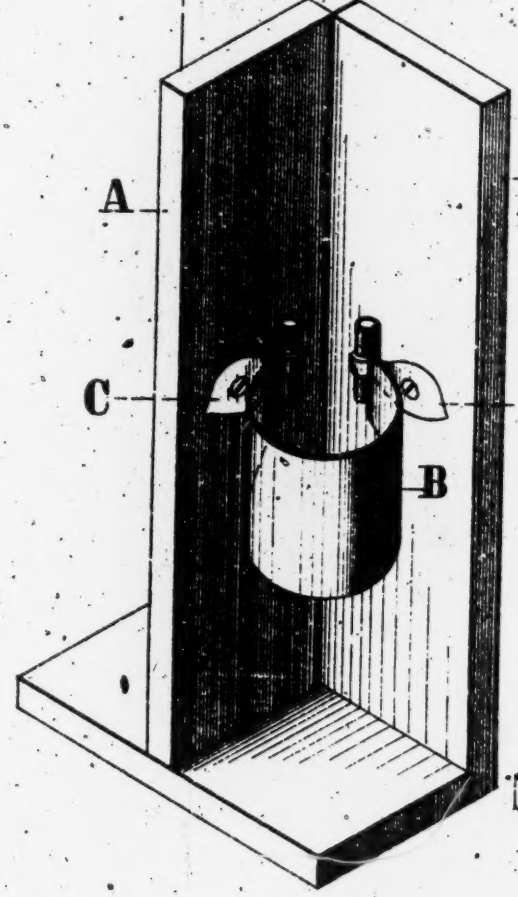



Fig. 2.

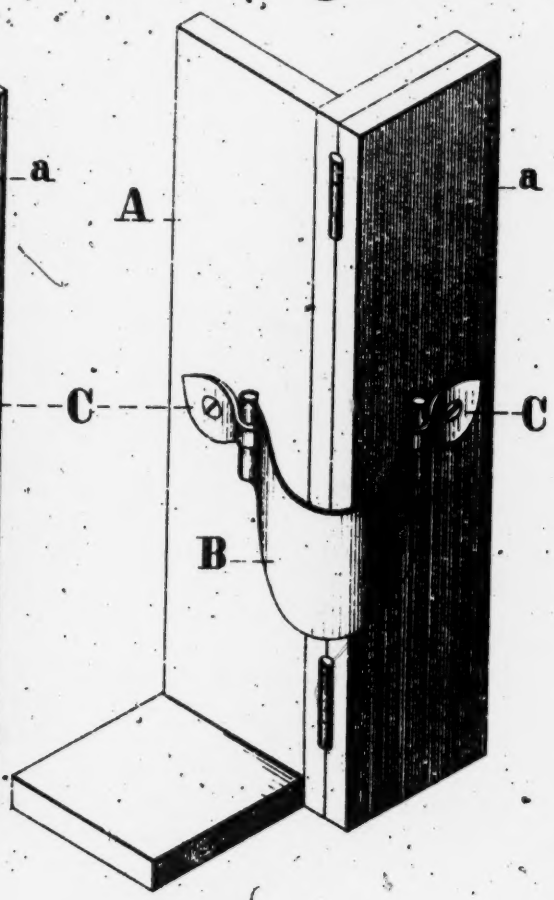



Fig. 3.

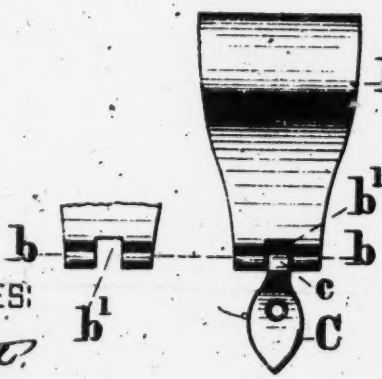
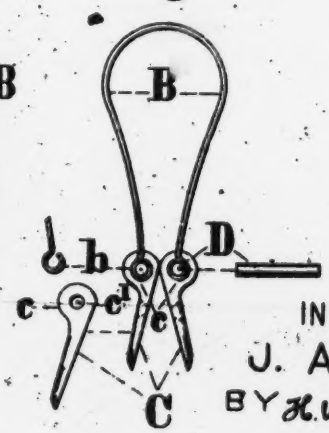



Fig. 4




WITNESSES:
T. S. West
U. L. West

INVENTOR:
J. A. MOHR,
BY H. W. Beadle & Co.
ATTYS

# UNITED STATES PATENT OFFICE.

JOHN A. MOHR, OF MANCHESTER, IOWA.

## DOOR-SPRING.

SPECIFICATION forming part of Letters Patent No. 236,689, dated January 18, 1881.

Application filed September 20, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. MOHR, of Manchester, in the county of Delaware and State of Iowa, have invented an Improvement in Door-Springs; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists in the combination of a plate-spring of peculiar form with certain bearing ears or flaps, and with certain securing-pins, by means of which a simple spring is obtained, which can be produced at a very low cost.

In the drawings, Figure 1 represents an isometric view of my improved spring applied to a door, the latter being represented in its closed position; Fig. 2, a similar view with the door in its open position, and Figs. 3 and 4 side and end elevations of the spring detached.

To enable others skilled in the art to make my improved spring, I will proceed to describe fully the construction of the same.

A, Figs. 1 and 2, represents the jamb of the door, and *a* the door itself.

B represents a spring, consisting of a plate of sheet-steel wider at the central portion than the ends, which is bent into U-shape form, as shown in Fig. 4, and is set in that position and properly tempered to give it the requisite elasticity.

*b b*, Figs. 3 and 4, represent eyes formed in the ends of the plate by properly bending the same, and *b'*, Fig. 3, a central recess between the eyes.

C C represent bearing ears or flaps, each of which is provided with a proper screw-hole, by means of which the same is properly screwed to the jamb or door, and with a projection, *c*, is inserted into the eyes *b* of the plate B and the eye *c'* of the flap C, for the purpose of securing the parts properly together.

The manner of applying the complete spring to the door is shown in Fig. 1, the bearing-flaps being secured to the door and jamb at such points that the spring, when in its normal position, will act to keep the door closed.

The operation is substantially as follows: By the ordinary opening of the door the end of the spring upon the door is drawn away from that upon the jamb against the resistance of the spring. When, consequently, the door is released, the same is closed by the necessary reaction. When the door is opened wide, as shown in Fig. 2, the tendency of the spring, it will be observed, is to keep it open.

Some of the advantages of the described construction are as follows: By constructing the spring-plate in the form shown—that is, with the widest part in the center—the material is disposed in the best manner—that is, the greater part of the same is located at the point of greatest strain.

The construction of the spring, as a whole, is very simple, and it can be produced at very low cost.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The door-spring described, consisting of the plate-spring B, having the eyes *b* formed integral therewith, the bearing ears or flaps C, having the eye-projection *c*, and the securing-pins D, uniting the flaps and plate together, arranged and attached in the manner set forth.

This specification signed and witnessed this 16th day of September, 1880.

JOHN A. MOHR.

JOHN A. MOHR, OF MANCHESTER, IOWA.

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D, Fig. 4, represents a securing-pin, which is inserted into the eyes *b* of the plate B and the eye *c'* of the flap C, for the purpose of securing the parts properly together.

The manner of applying the complete spring to the door is shown in Fig. 1, the bearing-flaps being secured to the door and jamb at such points that the spring, when in its normal position, will act to keep the door closed.

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This specification signed and witnessed this 16th day of September, 1880.

JOHN A. MOHR.

Witnesses:
CHAS. E. BRONSON
F. E. CORNISH,
W. A. ROE.

132

(Model.)

# H. C. HART.

## SPRING HINGE.

No. 431,349. Patented July 1, 1890.

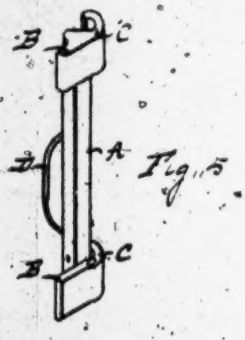



Fig. 5.

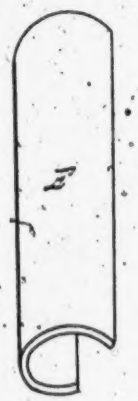



Fig. 4.

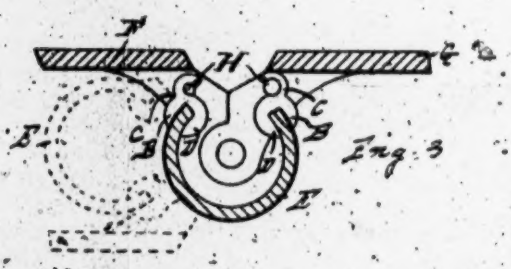



Fig. 3.

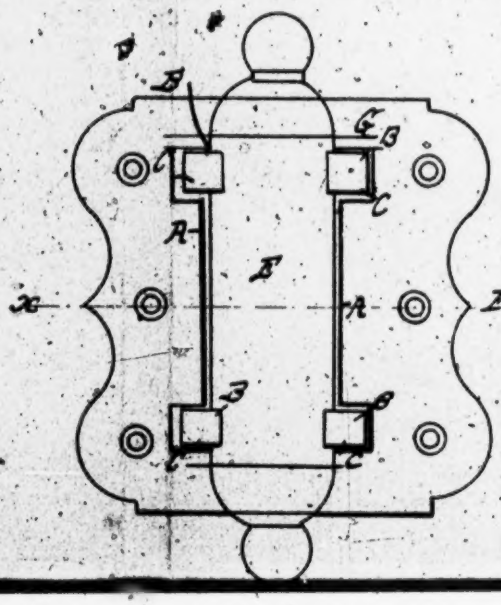



Fig. 1.

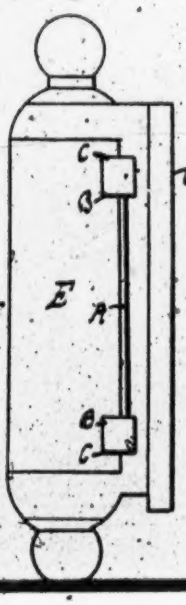



Fig. 2.

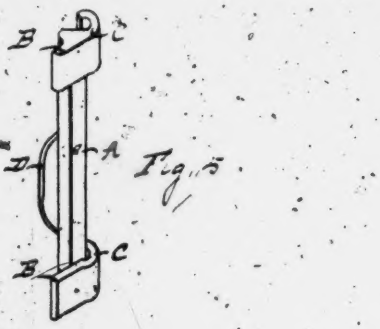



Fig. 5

Fig. 4

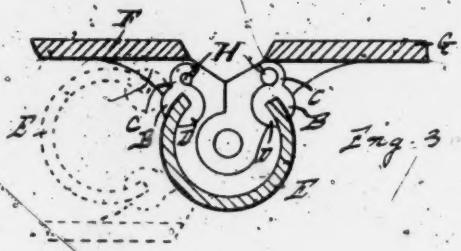



Fig. 3

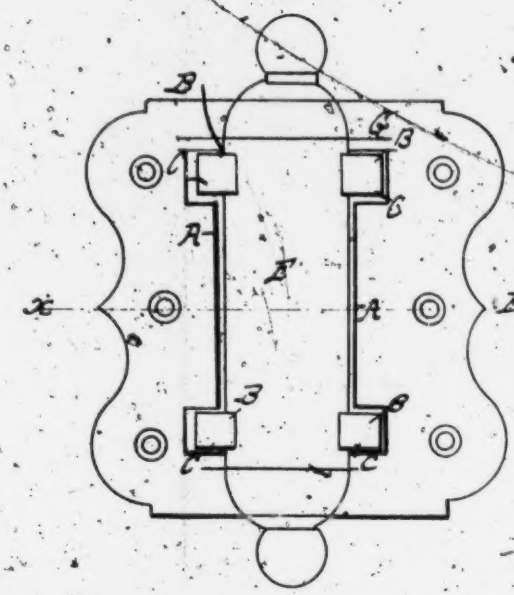



Fig. 1

Fig. 2

Witnesses
Adelaide A. Anderson
Agnes E. Lothrop

Inventor
Henry C. Hart
by Geo. W. Lothrop
Atty

# UNITED STATES PATENT OFFICE.

HENRY C. HART, OF DETROIT, MICHIGAN, ASSIGNOR TO THE VAN WAGONER & WILLIAMS COMPANY, OF NEW YORK.

## SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 431,349, dated July 1, 1890.

Application filed January 31, 1889. Serial No. 298,299. (Model.)

*To all whom it may concern:*

Be it known that I, HENRY C. HART, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Double-Acting Spring-Hinges, of which the following is a specification.

My invention consists in an improvement in double-acting spring-hinges, hereinafter fully described and claimed.

Figure 1 is a front elevation. Fig. 2 is a side elevation; Fig. 3, a cross-section on line *x x*, Fig. 1; Fig. 4, a perspective of the spring, and Fig. 5 a perspective of a hook forming the end of the spring, by which it connects with the leaf.

G and F represent the two leaves of a double-acting spring-hinge, the pintle-line being thrown forward from the plane of the leaves, as is usual in this form of hinge.

E represents a bow-spring of steel, whose ends are pivotally connected with the leaves G F at a point between said leaves and the pintle-line, as shown in Fig. 3, whereby the action of the spring E will hold the hinge closed, or, after opening a certain distance, will hold the hinge open, as shown in dotted lines, Fig. 3. The ends of the spring E may be formed into hooks to engage directly with the leaves; but it is usually easier to make the hook of some softer metal than the spring and connect the ends of the spring therewith. Such a hook is represented in Fig. 5, in which a bar A has formed at its two ends the hooks C and carries three projecting lugs, the end ones B B being on the same side and the center one D being on the other side, so that the end of spring E will lie between the lugs D B B and be held therein by the pressure of the spring. The hooks C C engage with pins H H, formed on the leaves G F.

The operation of this hinge is as follows, reference being had particularly to Fig. 3: When the hinge is closed—that is, in the position shown in full lines in Fig. 3—the force of the spring E, acting on pins H, tends to draw said pins together, and, as they are located between the plane of the leaves and the pintle-line, holds the hinge closed. When the hinge is opened, one of the pins H travels in a circle whose center is the pintle of the hinge, and the distance between the pins H on the opposite leaves constantly increases until a straight line between said pins H cuts the pintle-line of the hinge. This is called the "dead-point" of the hinge, and at this point the spring E has no effective action. If the opening of the hinge be continued, as soon as the line between the two pins H passes the pintle-line the force of the spring E draws the pins H toward each other and holds the hinge open, as shown in dotted lines in Fig. 3. It is evident that this construction permits the use of a continuous pintle instead of two short pintles.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a double-acting spring-hinge, the combination of two leaves having their pintle-line outside of the plane of said leaves, and a bow-spring having its opposite ends pivotally connected, respectively, with said leaves between the plane of the leaves and the pintle-line, substantially as shown and described.

2. A hinge consisting of leaves F and G, a bar A, having projecting lugs B B D and hooks C, connected with parts of a hinge-leaf, and a bow-spring E, held by said lugs, substantially as described.

HENRY C. HART.

Witnesses:

HENRY B. LOTHROP,

ADELAIDE A. ANDERSON.

(No Model.)

# G. S. & H. D. BRONSON.

## SPRING HINGE.

No. 577,593. Patented Feb. 23, 1897.

Fig. 1.

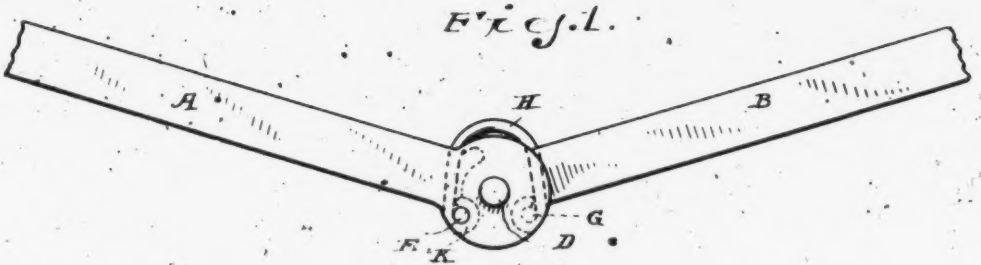



Fig. 2.

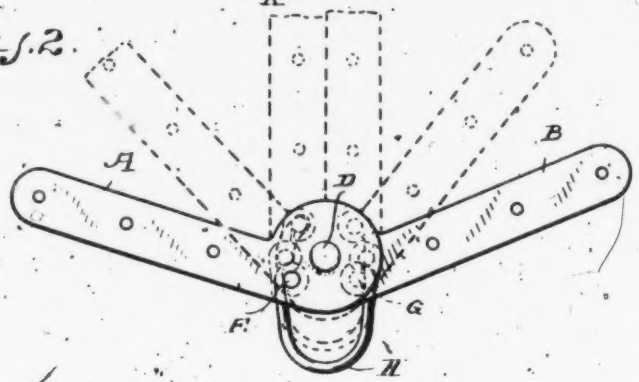



Fig. 5.

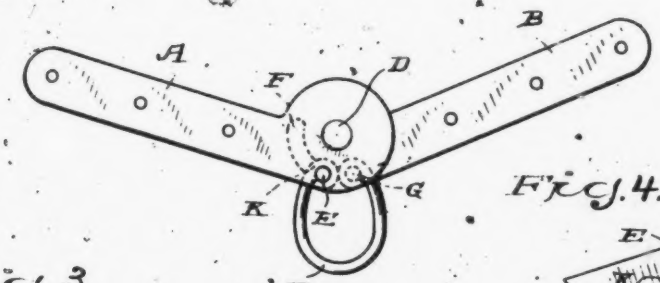



Fig. 4.

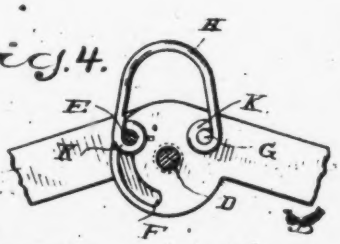



Fig. 3.

Fig. 6.

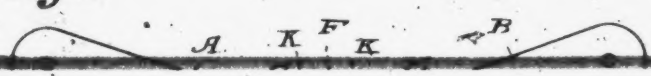


Fig. 1.

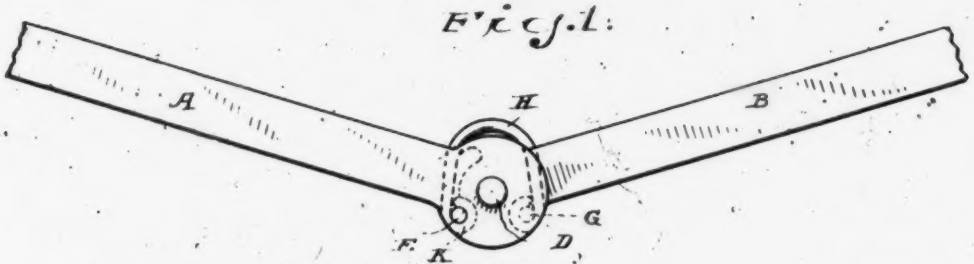



Fig. 2.

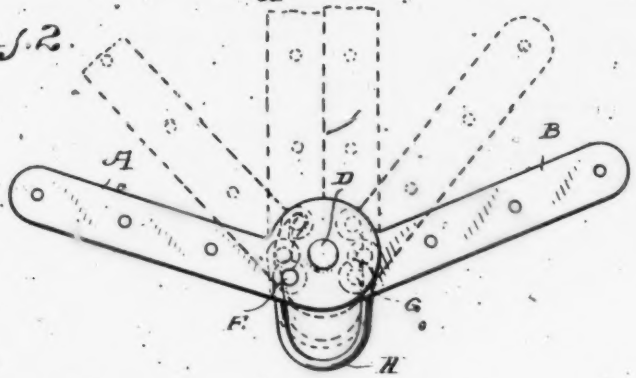



Fig. 5.

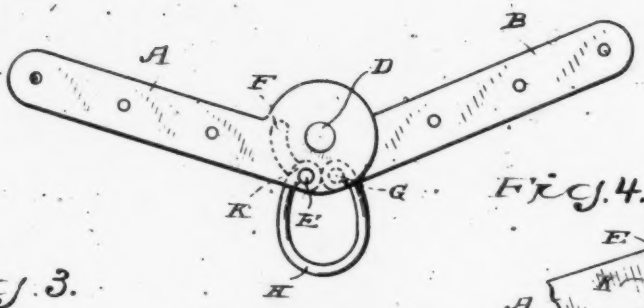



Fig. 4.

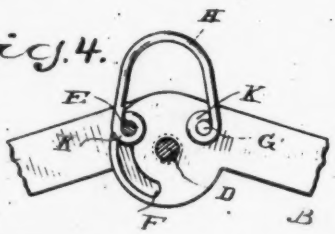



Fig. 3.

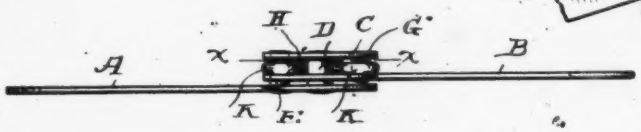
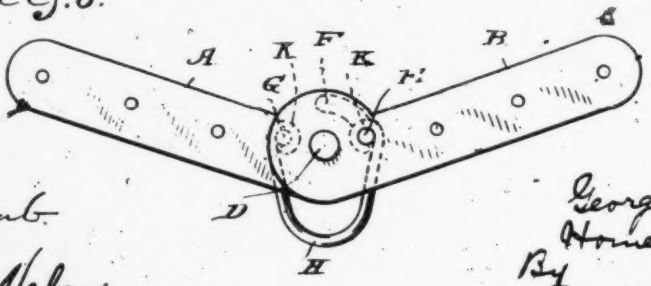



Fig. 6.




WITNESSES

H. A. Lamb

Susan V. Heley

INVENTORS

George S. Bronson and
Homer D. Bronson

By A. M. Wooster
Atty.

# UNITED STATES PATENT OFFICE.

GEORGE S. BRONSON AND HOMER D. BRONSON, OF BEACON FALLS, CONNECTICUT, ASSIGNORS TO THE HOMER D. BRONSON COMPANY, OF SAME PLACE.

## SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 577,593, dated February 23, 1897.

Application filed October 21, 1896. Serial No. 609,488. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE S. BRONSON and HOMER D. BRONSON, citizens of the United States, residing at Beacon Falls, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Spring-Hinges; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has for its object to provide a simple, inexpensive, and durable hinge adapted for general use and especially adapted for use as a desk-hinge or bag-hinge, and which may be so constructed and arranged that the spring will act to throw the leaves of the hinge either to the open or to the closed position or to both the open and the closed positions, depending upon which side of a dead-center the leaves are carried.

With these ends in view we have devised the novel hinge of which the following description, in connection with the accompanying drawings, is a specification, letters being used to designate the several parts.

Figure 1 is an elevation illustrating a form of our novel hinge in which the two leaves of the hinge are plates or strips of metal, as, for example, the jaw-frames of a traveling-bag, the parts of the hinge being formed integral with the plates; Fig. 2, a section illustrating a form of our novel hinge adapted for general use, as, for example, a desk-hinge, an open position of the hinge being shown in full lines and an intermediate position in which the studs are in line with each other, and also the closed position being shown in dotted lines, this form differing from the form illustrated in Fig. 1 in that the bow of the spring extends in the opposite direction; Fig. [illegible] of the form of our novel hinge position, and Fig. 6 is an elevation corresponding with Fig. 2 with the exception that the parts are so arranged that the spring will act to throw the leaves only toward the closed position and that a reverse hinge is shown.

A and B denote hinge-leaves which lie parallel with each other, and C a plate which is secured parallel with the leaves at a slight distance therefrom by a central shouldered stud D, on which leaf B turns freely, and a stud E, which passes through an opening F in leaf B, both of said studs rigidly engaging leaf A and the plate.

G denotes a stud extending outward from leaf B and into close proximity with the plate, but not in engagement therewith.

H denotes a bow-spring having at its ends attaching-eyes K, one of which engages stud E and the other stud G.

It will be obvious from Fig. 2 that in the form illustrated in Figs. 1 to 4, inclusive, when the parts are placed in the intermediate position indicated in dotted lines, that is, a position in which the three studs are in line with each other, the spring will have no action on the leaves. As soon, however, as the leaves are moved in either direction the springs will act to either open or close the leaves. For example, if the parts are moved from the intermediate position toward the closed position the spring will act to throw the leaves to the closed position, and if the parts are moved from the intermediate position toward the position shown in full lines, that is, the open position, the spring will instantly act to throw the leaves toward that position, the engagement of stud E with the end of opening F serving in either instance as a stop to limit the movement of the leaves, this opening being preferably made just long enough so that when the leaves are in the

# SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 577,593, dated February 23, 1897.

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Our invention has for its object to provide a simple, inexpensive, and durable hinge adapted for general use and especially adapted for use as a desk-hinge or bag-hinge, and which may be so constructed and arranged that the spring will act to throw the leaves of the hinge either to the open or to the closed position or to both the open and the closed positions, depending upon which side of a dead-center the leaves are carried.

With these ends in view we have devised the novel hinge of which the following description, in connection with the accompanying drawings, is a specification, letters being used to designate the several parts.

Figure 1 is an elevation illustrating a form of our novel hinge in which the two leaves of the hinge are plates or strips of metal, as, for example, the jaw-frames of a traveling-bag, the parts of the hinge being formed integral with the plates; Fig. 2, a section illustrating a form of our novel hinge adapted for general use, as, for example, a desk-hinge, an open position of the hinge being shown in full lines and an intermediate position in which the studs are in line with each other, and also the closed position being shown in dotted lines, this form differing from the form illustrated in Fig. 1 in that the bow of the spring extends in the opposite direction; Fig. 3, an edge view of the form of our novel hinge illustrated in Fig. 2, as seen from above in said figure; Fig. 4, a section on the line *x x in Fig. 3*. In this form of our novel hinge the construction is such that the spring will act to throw the leaves either to the open or closed position. Fig. 5 is an elevation corresponding with Fig. 2 with the exception that the parts are so arranged that the spring will act only to throw the leaves toward the open position, and Fig. 6 is an elevation corresponding with Fig. 2 with the exception that the parts are so arranged that the spring will act to throw the leaves only toward the closed position and that a reverse hinge is shown.

A and B denote hinge-leaves which lie parallel with each other, and C a plate which is secured parallel with the leaves at a slight distance therefrom by a central shouldered stud D, on which leaf B turns freely, and a stud E, which passes through an opening F in leaf B, both of said studs rigidly engaging leaf A and the plate.

G denotes a stud extending outward from leaf B and into close proximity with the plate, but not in engagement therewith.

H denotes a bow-spring having at its ends attaching-eyes K, one of which engages stud E and the other stud G.

It will be obvious from Fig. 2 that in the form illustrated in Figs. 1 to 4, inclusive, when the parts are placed in the intermediate position indicated in dotted lines, that is, a position in which the three studs are in line with each other, the spring will have no action on the leaves. As soon, however, as the leaves are moved in either direction the springs will act to either open or close the leaves. For example, if the parts are moved from the intermediate position toward the closed position the spring will act to throw the leaves to the closed position, and if the parts are moved from the intermediate position toward the position shown in full lines, that is, the open position, the spring will instantly act to throw the leaves toward that position, the engagement of stud E with the end of opening F serving in either instance as a stop to limit the movement of the leaves, this opening being preferably made just long enough so that when the leaves are in the closed position stud E will lie at one end of the opening and when at the extreme open position stud E will lie at the other end of the opening.

The shape of the hinge-leaves is of course not of the essence of our invention, but the shape of the leaves may be varied to suit the special requirements of the use to which the hinge is to be placed, nor does it matter so far as the principle of our invention is con-

cerned whether the bow of the spring extend in one direction or the other, that is, as in either Figs. 1 or 2.

Should the use to which the hinge is to be placed require such an arrangement that the action of the spring will be to throw the leaves to the open position, it is simply necessary to change the location of the opening and studs E and G to substantially the position shown in Fig. 5. It will be obvious that when the leaves in this form of our novel hinge are at the closed position the three studs will be approximately in line with each other, stud E lying at the end of opening F, as in the other form. The instant the leaves are moved toward the open position studs E and G will pass out of line with stud D and the spring will instantly act to throw the leaves toward the open position. The reverse of this is apparent in the form illustrated in Fig. 6. In this form the parts are so arranged that the spring will act only to throw the leaves toward the closed position, the studs being approximately in line with each other and stud E at one end of opening F when the parts are in the open position, so that the instant the leaves are moved toward the closed position the spring will act to throw them to that position.

Having thus described our invention, we claim—

A hinge consisting of leaves lying parallel with each other and a plate lying parallel with the leaves and secured to one of said leaves by studs D and E, one of said leaves being pivoted on stud D and being provided with an opening through which stud E passes and with a stud G and a bow-spring the ends of which are attached to studs E and G substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE S. BRONSON.
HOMER D. BRONSON.

Witnesses:
JOHN F. BRONSON,
D. C. BRONSON.

140

(No Model.)

# A. D. TYLER, Jr.

## LAST.

No. 601,622. Patented Mar. 29, 1898.

*Fig. 1.*

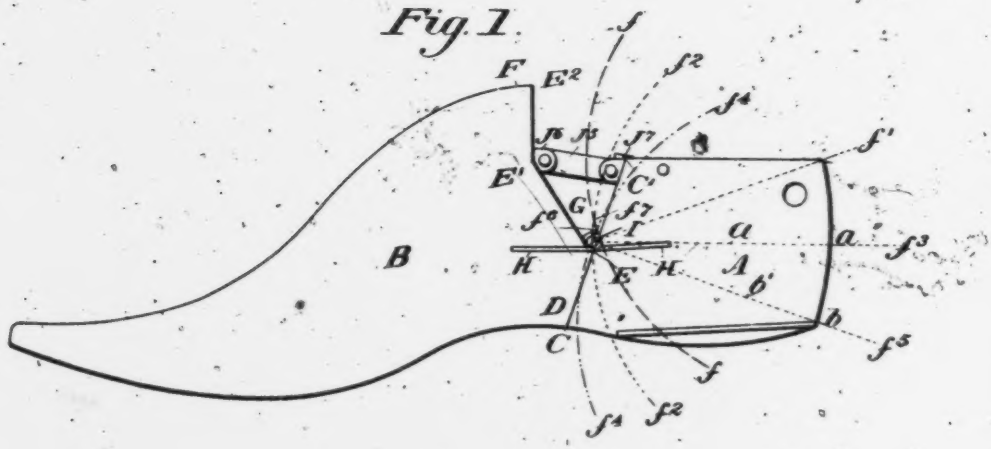



*Fig. 2.*

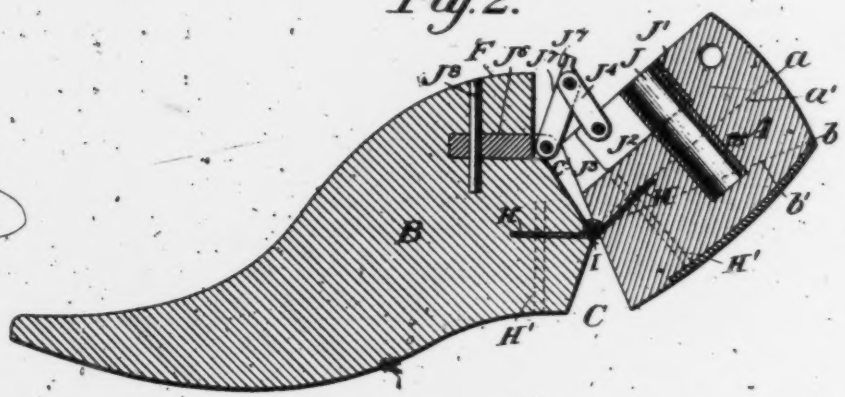



*Fig. 3.*

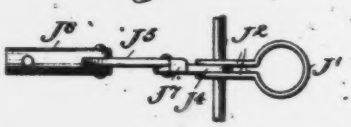


Fig. 1.

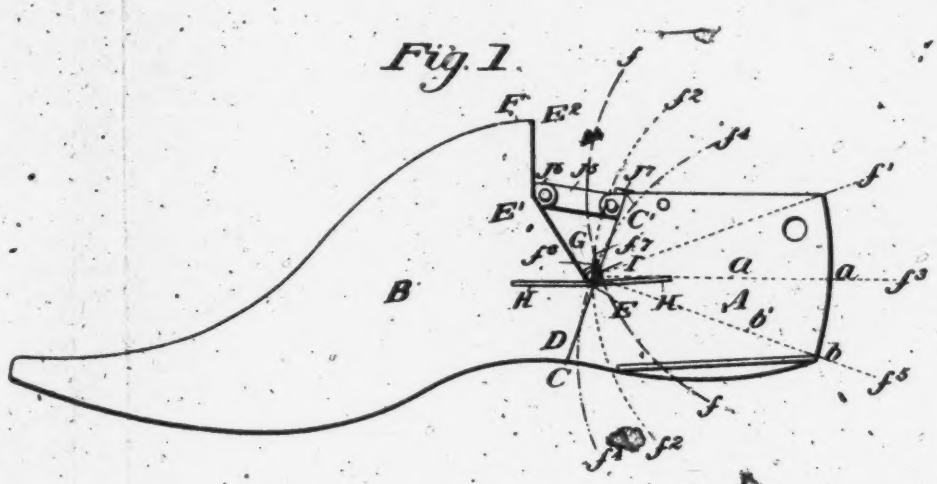



Fig. 2.

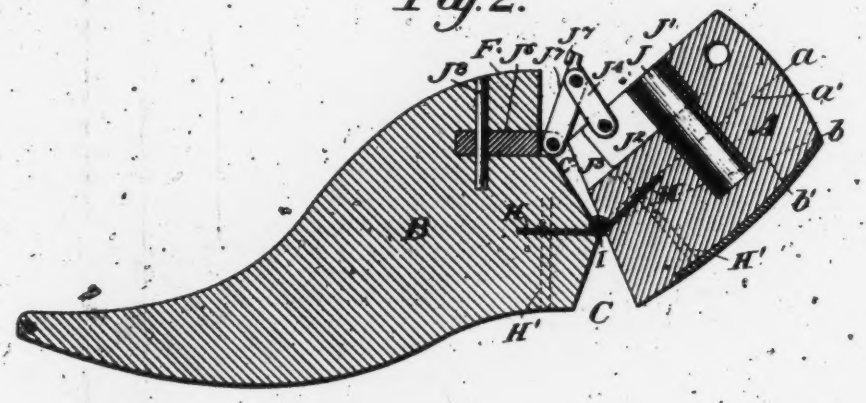
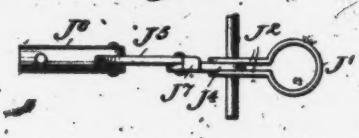



Fig. 3.




Witnesses.
B. A. Allen.
R. P. Elliott

Inventor.
Abel D. Tyler, Jr.
by his attorney
Edwin S. Beach

# UNITED STATES PATENT OFFICE.

ABEL D. TYLER, JR., OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO SAMUEL MAWHINNEY, OF SAME PLACE.

## LAST.

SPECIFICATION forming part of Letters Patent No. 601,622, dated March 29, 1898.

Application filed June 9, 1893. Serial No. 477,068. (No model.)

*To all whom it may concern:*

Be it known that I, ABEL D. TYLER, Jr., a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Lasts, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, and in which—

Figure 1 represents a side elevation of a last embodying my invention. Fig. 2 is a central vertical sectional view; and Fig. 3 is a top view of the connecting-links by which the two sections of the last may be united for the purpose of relieving the hinge-joint from strain, if so desired.

Similar letters refer to similar parts in the different figures.

My invention relates to that class of lasts which are divided transversely into two sections, so as to allow the last to be contracted in length and withdrawn from the boot or shoe without exerting any strain upon the upper by the removal of the last; and the object of my invention is to increase the strength and rigidity of the last when in use and to so shape and arrange the sections of the last as to facilitate its removal and increase its efficiency.

The last embodying my invention is divided transversely into two sections. One of these sections A includes the heel portion of the last and the other section B the forward portion of the last, these sections being generally called, respectively, the "heel" part and "fore" part. In forming these parts the last is (in the preferred form now shown) divided on the line C C', extending from the bottom of the last obliquely upward, so as to make the angle D on the portion B between the line C C' lines H' H',) so as to connect the two sections of the last by a hinge-joint having its pintle I or axis of its rotation lying within the angle included between the lines C C' and E E'. The position of the pintle I is determined by making the radial distance between the axis of the pintle and the center of the heel-section at *a*, as indicated by the broken line *a'*, equal to the radial distance from the axis of the pintle to the point *b* at the bottom of the heel-section, as indicated by the broken line *b'*, said measurements being taken in a plane dividing the last in the center vertically, as shown by the sectional view in Fig. 2, and the two equal radii *a'* and *b'* are also the radii of the arc of the circle *a b*, so that the path of the point *b* as the heel-section is raised will correspond with the arc *a b*, or, in other words, the axis of rotation of the heel-section is concentric with the arc of the circle *a b*, bounding the rear side of the heel-section from the bottom of the heel at *b* to the center of the heel at *a*.

Within the heel portion A, I place a metallic bushing J to receive a bench-pin, and around the upper end of the bushing J is a metallic strap J', provided with ears $J^2$ $J^2$, lying within a slot $J^3$ in the heel portion of the last. To the ears $J^2$, I pivot one end of a link $J^4$, having its opposite end pivoted to a plug $J^6$, inserted in and fastened to the front portion B of the last. The link $J^3$ is provided with a lug $J^7$, arranged to extend over and come in contact with the upper edge of the link $J^4$ and acting as a stop, so that when the center joint of the link is depressed below a straight line, as shown in Fig. 1, the links will serve as a rigid brace to hold the two sections in their extended position. When the last is in use and a strain brought upon the bottom

ABEL D. TYLER, JR., OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO SAMUEL MAWHINNEY, OF SAME PLACE.

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*To all whom it may concern:*

Be it known that I, ABEL D. TYLER, Jr., a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Lasts, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, and in which—

Figure 1 represents a side elevation of a last embodying my invention. Fig. 2 is a central vertical sectional view; and Fig. 3 is a top view of the connecting-links by which the two sections of the last may be united for the purpose of relieving the hinge-joint from strain, if so desired.

Similar letters refer to similar parts in the different figures.

My invention relates to that class of lasts which are divided transversely into two sections, so as to allow the last to be contracted in length and withdrawn from the boot or shoe without exerting any strain upon the upper by the removal of the last; and the object of my invention is to increase the strength and rigidity of the last when in use and to so shape and arrange the sections of the last as to facilitate its removal and increase its efficiency.

The last embodying my invention is divided transversely into two sections. One of these sections A includes the heel portion of the last and the other section B the forward portion of the last, these sections being generally called, respectively, the "heel" part and "fore" part. In forming these parts the last is (in the preferred form now shown) divided on the line C C', extending from the bottom of the last obliquely upward, so as to make the angle D on the portion B between the line C C' and the bottom of the last an obtuse angle. The portion B is then cut away on the line E E', beginning at or near the center of the line C C' and extending obliquely upward and forward to the point E', thence on the line E' E² vertically, so as to form a right angle with the top line F' of the last, forming an open space G between the portions A and B. The leaves H H of a hinge are inserted in slots cut in the sections A B of the last and are held in place by pins, (shown by broken lines H' H',) so as to connect the two sections of the last by a hinge-joint having its pintle I or axis of its rotation lying within the angle included between the lines C C' and E E'. The position of the pintle I is determined by making the radial distance between the axis of the pintle and the center of the heel-section at *a*, as indicated by the broken line *a'*, equal to the radial distance from the axis of the pintle to the point *b* at the bottom of the heel-section, as indicated by the broken line *b'*, said measurements being taken in a plane dividing the last in the center vertically, as shown by the sectional view in Fig. 2, and the two equal radii *a'* and *b'* are also the radii of the arc of the circle *a b*, so that the path of the point *b* as the heel-section is raised will correspond with the arc *a b*, or, in other words, the axis of rotation of the heel-section is concentric with the arc of the circle *a b*, bounding the rear side of the heel-section from the bottom of the heel at *b* to the center of the heel at *a*.

Within the heel portion A, I place a metallic bushing J to receive a bench-pin, and around the upper end of the bushing J is a metallic strap J', provided with ears J³ J³, lying within a slot J² in the heel portion of the last. To the ears J³, I pivot one end of a link J⁴, having its opposite end pivoted to a plug J⁶, inserted in and fastened to the front portion B of the last. The link J⁴ is provided with a lug J⁷, arranged to extend over and come in contact with the upper edge of the link J⁴ and acting as a stop, so that when the center joint of the link is depressed below a straight line, as shown in Fig. 1, the links will serve as a rigid brace to hold the two sections in their extended position. When the last is in use and a strain brought upon the bottom of the last, such as would be exerted in pounding upon the sole of the boot, the links J⁴ J⁵ will hold the sections A and B together at their top and relieve the hinge from strain. By separating the two sections of the last upon the line C C' and hinging them together at or near the center of the heel-section I provide an obtuse angle at D, which is not liable to catch and which provides a long surface in contact between the points C and E, and by hinging the two sections together, with the

pintle of the hinge included within and near the apex of the angle C' E E', I enable the heel-section to be turned into the position shown in Fig. 2 without causing the lower corner of the heel at C to project below the line of the last when in its normal position.

The strain upon the links $J^4$ $J^5$ is received at one end by the strip J' and bushing J, firmly held within the heel portion of the last and at the opposite end by the plug $J^6$, which extends a considerable distance into the body of the last and is held by a pin $J^8$.

The front portion B of the last is cut away on the line E E' sufficiently to allow the heel portion A to be raised into the position shown in Fig. 2, and an angle is formed at E' by the vertical line E' $E^2$ in order to preserve the upper portion or instep of the last at F, so as to form at this point a support for the upper.

I am aware that lasts divided transversely and having their sections hinged together are not new, and I do not claim such broadly.

The location of the pivot in or above the line of pressure between the heel and toe, tending to collapse the last, prevents the last from collapsing topward as well as bottomward. There is a tendency sometimes in the leather to contract, and thus there is a tendency to collapse the last topward, and in the course of manufacture strains are frequently exerted upon the shoe and contained last that tend to collapse the last bottomward. The described elevation of the hinge above the bottom of the last produces broad and substantial bearing-surfaces at the opposed ends of the fore part and heel part below the hinge or articulation, and these surfaces prevent the last from collapsing bottomward. By the described location of the pivotal connection a last is produced suitable for very extensive practical use without the employment of any filling-block or other device between the upper portions of the fore part and heel part.

By "line of pressure" between the toe and heel tending to collapse the last is meant all the pressures to which a last of this kind is subjected in use and which tend to collapse it. Thus in the process of manufacturing shoes these lasts are subject to longitudinal and also to vertical pressures which tend to collapse the last, and at other times the lasts are subjected to longitudinal pressures which tend to collapse them and which are exerted by the shrinkage or inherent elasticity of the upper leather after it is on the last. The line of this pressure is from about half to three-quarters of an inch above the back lower corner of the heel to the toe of the last, and when the shoe and last are in operative relation, both in as well as out of such machines, as the leveling and beating-out machines, for instance, when the sole of the lasted shoe is subjected to the roller of such a sole-leveling machine as is set forth in the Winkley and Phillips patent, No. 540,223, of May 28, 1895; but if the sole of the lasted shoe be leveled in such a machine as is set forth in Tripp's patent, No. 296,480, of April 8, 1884, then the vertical pressure (which combines with the longitudinal pressure) will be constant. These illustrations of what is included by said phrase are not intended to be inclusive of all instances where the pressure between heel and toe tending to collapse is present or occurs, and the gist of this matter will be best understood from a comparison of this last, wherein the pivot is located in or above the line of pressure between heel and toe tending to collapse the last, so that it does not shut up like a jackknife, with lasts such as shown in the Smith patent, No. 395,668, of January 1, 1889, in which the hinge between the fore part and heel part is so located that it will collapse like a jackknife when a pressure occurs longitudinally of the last or vertically from bottom toward crown.

As already explained in my application, Serial No. 449,962, filed October 25, 1892, the proper location of the pivot or line of head of the hinge so as to produce a transversely divided hinged last, which, whatever its size or style, (contour,) enables the last to shorten when the heel part is turned upward and forward and also to be self-sustaining under the lengthwise pressures to which the last is subjected when in the shoe, is determined as follows: Strike three circles of equal diameter, one from the upper rear corner of the last, so as to pass through the fore part, a second from the middle point of the extreme rear line of the heel part, and a third from the lower rear corner of the heel part. These circles will intersect between the top and bottom of the last far enough above the last to insure the contacting end surfaces of the heel part and fore part, the pivot being located just below the lower intersection of two of the circles if all three circles do not intersect at one point. The length of radii of the circles may be varied, but it is generally desirable in the present type of lasts to have the points of intersection rearward of the instep portion of the fore part. By reference to Fig. 2 the reason of the rule for so locating the pivot will be apparent. $f f$ represent a portion of a circle struck from the rear upper corner $f'$ of the heel part as a center. $f^1 f^2$ represent a portion of a circle struck from the middle point $f^3$ of the rear line of the heel part as a center, and $f^4 f^5$ represent a portion of a circle struck from the lower rear corner $f^6$ as a center. Lines $f f$ and $f^4 f^4$ intersect at $f^7$ and lines $f f$

shown in Fig. 2 without causing the lower corner of the heel at C to project below the line of the last when in its normal position.

The strain upon the links $J^4$ $J^5$ is received at one end by the strip J' and bushing J, firmly held within the heel portion of the last and at the opposite end by the plug $J^6$, which extends a considerable distance into the body of the last and is held by a pin $J^8$.

The front portion B of the last is cut away on the line E E' sufficiently to allow the heel portion A to be raised into the position shown in Fig. 2, and an angle is formed at E' by the vertical line E' $E^2$ in order to preserve the upper portion or instep of the last at F, so as to form at this point a support for the upper.

I am aware that lasts divided transversely and having their sections hinged together are not new, and I do not claim such broadly.

The location of the pivot in or above the line of pressure between the heel and toe, tending to collapse the last, prevents the last from collapsing topward as well as bottomward. There is a tendency sometimes in the leather to contract, and thus there is a tendency to collapse the last topward, and in the course of manufacture strains are frequently exerted upon the shoe and contained last that tend to collapse the last bottomward. The described elevation of the hinge above the bottom of the last produces broad and substantial bearing-surfaces at the opposed ends of the fore part and heel part below the hinge or articulation, and these surfaces prevent the last from collapsing bottomward. By the described location of the pivotal connection a last is produced suitable for very extensive practical use without the employment of any filling-block or other device between the upper portions of the fore part and heel part.

By "line of pressure" between the toe and heel tending to collapse the last is meant all the pressures to which a last of this kind is subjected in use and which tend to collapse it. Thus in the process of manufacturing shoes these lasts are subject to longitudinal and also to vertical pressures which tend to collapse the last, and at other times the lasts are subjected to longitudinal pressures which tend to collapse them and which are exerted by the shrinkage or inherent elasticity of the upper leather after it is on the last. The line of this pressure is from about half to three-quarters of an inch above the back lower corner of the heel to the toe of the last, and when the shoe and last are in operative relation, both in as well as out of such machines, as the leveling and beating-out machines, wherein the last is subjected to enormous pressure, the line of longitudinal pressure tending to collapse the last is a fixed quantity, although the occasional vertical pressure which also tends to collapse the last may shift from point to point over the sole—

ley and Phillips patent, [illegible] 28, 1895; but if the sole of the lasted shoe be leveled in such a machine as is set forth in Tripp's patent, No. 296,480, of April 8, 1884, then the vertical pressure (which combines with the longitudinal pressure) will be constant. These illustrations of what is included by said phrase are not intended to be inclusive of all instances where the pressure between heel and toe tending to collapse is present or occurs, and the gist of this matter will be best understood from a comparison of this last, wherein the pivot is located in or above the line of pressure between heel and toe tending to collapse the last, so that it does not shut up like a jackknife, with lasts such as shown in the Smith patent, No. 395,668, of January 1, 1889, in which the hinge between the fore part and heel part is so located that it will collapse like a jackknife when a pressure occurs longitudinally of the last or vertically from bottom toward crown.

As already explained in my application, Serial No. 449,962, filed October 26, 1892, the proper location of the pivot or line of head of the hinge so as to produce a transversely divided hinged last, which, whatever its size or style, (contour,) enables the last to shorten when the heel part is turned upward and forward and also to be self-sustaining under the lengthwise pressures to which the last is subjected when in the shoe, is determined as follows: Strike three circles of equal diameter, one from the upper rear corner of the last, so as to pass through the fore part, a second from the middle point of the extreme rear line of the heel part, and a third from the lower rear corner of the heel part. These circles will intersect between the top and bottom of the last far enough above the last to insure the contacting end surfaces of the heel part and fore part, the pivot being located just below the lower intersection of two of the circles if all three circles do not intersect at one point. The length of radii of the circles may be varied, but it is generally desirable in the present type of lasts to have the points of intersection rearward of the instep portion of the fore part. By reference to Fig. 3 the reason of the rule for so locating the pivot will be apparent. $f\,f$ represent a portion of a circle struck from the rear upper corner $f'$ of the heel part as a center. $f^1\,f^1$ represent a portion of a circle struck from the middle point $f^2$ of the rear line of the heel part as a center, and $f^3\,f^3$ represent a portion of a circle struck from the lower rear corner $f^4$ as a center. Lines $f\,f$ and $f^1\,f^1$ intersect at $f^5$ and lines $f\,f$ and $f^3\,f^3$ intersect at $f^6$, the latter being the lowermost intersection. If the pivot I were located at this lowermost intersection $f^6$, the last would actually shorten if the heel part were moved upwardly; but the shortening would not be sufficient to allow the wider

tread and immediately adjacent side portions of the heel part to swing freely through and out of the narrower ankle-space of the shoe without distorting the latter or injuring the backstays. Therefore in practice I mount the hinge in such wise as to bring its line of bend or pivot a little below this lowermost intersection.

The links J and J' may be wholly dispensed with, if desired, in most uses to which lasts of this class are put, and the parts of the last may be sawed on somewhat different lines than those indicated without departure from my invention.

Additional advantages of my improved last are as follows: The preferable insertion of the leaves of the hinge in the body of the last gives the combined parts a strength that enables the last to withstand the heavy pressure frequently exerted upon the bottom of the last by leveling and beating-out machines, there being no liability of tearing the fastenings from the wood. The location of the hinge permits the shortening of the last when the heel part is swung upward and forward without scraping the lower front corner of the heel part against the insole of the shoe and thereby abrading it.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A last comprising a fore part and a heel part connected by a pivot to enable said parts to have a relative movement for shortening the last, said pivot being located in or above the line of pressure between the toe and heel tending to collapse said last.

2. In a transversely-divided last, the combination of a heel part and a front part divided on a line extending from the bottom to the top of the last and having an angular piece removed forming a space, as at G, with its apex near the center of the last, said heel and fore parts being provided with transverse slots in a horizontal plane to receive the leaves of a hinge; a hinge uniting said heel and front sections having its leaves inclosed within said transverse slots in the heel and fore parts, and means for retaining said leaves within said slots, whereby the strain in a vertical plane upon the leaves of the hinge, is received by the body of the last, substantially as described.

3. In a transversely-divided last, the combination of a heel part and a fore part divided on the line C, C', and having an angular piece removed, forming the sides E, E', and E, C', and inclosing an angle having its apex near the center of the last, said heel and fore parts being provided with transverse slots in a horizontal plane to receive the leaves of a hinge; a hinge uniting said heel and fore parts and having its leaves inclosed within said transverse slots in the heel and fore parts and means for retaining said leaves within said slots, whereby the strain in a vertical plane upon the leaves of the hinge is received by the body of the last, substantially as described.

4. In a transversely-divided last, the combination of a heel part A, provided with a metal bushing J, a fore part B hinged to said heel part, a plug $J^6$ inserted in and attached to said fore part, a strap J' inclosing said bushing J and having ears $J^3$ and links $J^4$ and $J^5$ connecting said ears and said plug, whereby said heel and fore parts are connected at the top, of the last, substantially as described.

5. In a transversely-divided last, the combination with a fore part and heel part formed with opposed contacting ends from the bottom of the last upwardly to near the middle thereof, and with an open space, above said contacting surfaces and between the upper portions of the inner ends of the fore part and heel part, of a hinge whose leaves are respectively inserted and secured in the fore part and heel part with the line of bend of the hinge above said contacting surfaces, all arranged and operating, substantially as described, to permit the last to shorten when the heel part is turned upward and forward, and to make the last self-sustaining under lengthwise pressure in the shoe.

Dated this 2d day of June, 1893.

ABEL D. TYLER, JR.

Witnesses:
RUFUS B. FOWLER,
EMMA KESTER.

146

No. 622,941. Patented Apr. 11, 1899.

E. A. BURNS.

LAST.

(Application filed July 23, 1898.)

(No Model.)

Fig. 1

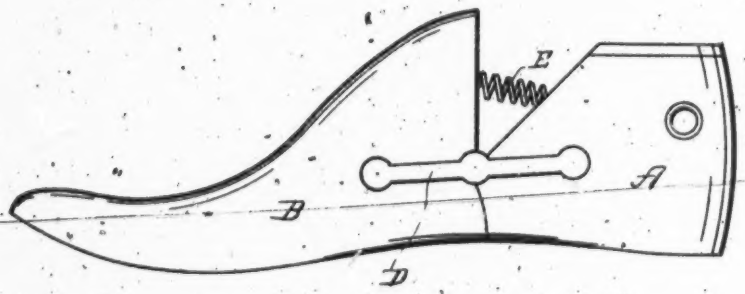



Fig. 2

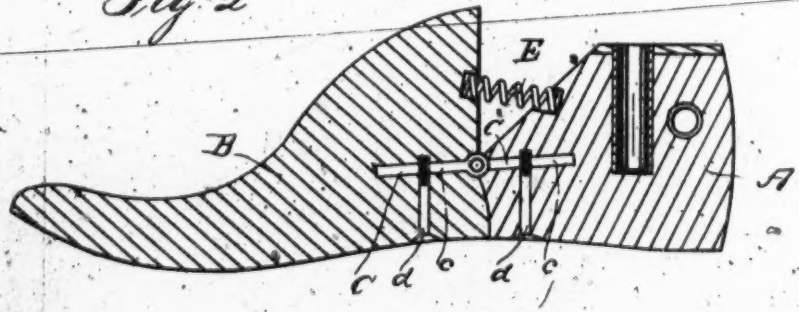



Fig. 3

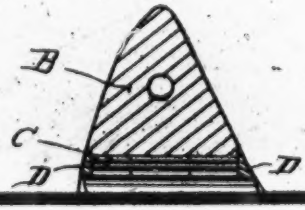


Fig. 1

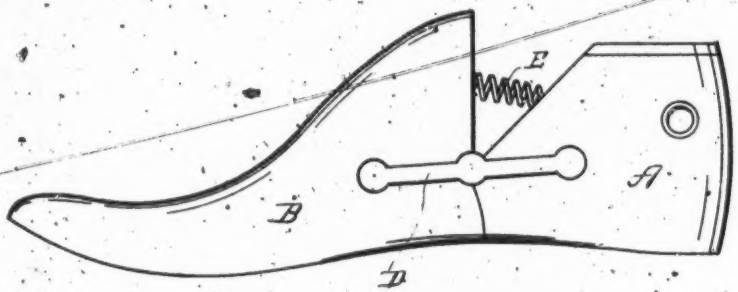



Fig. 2

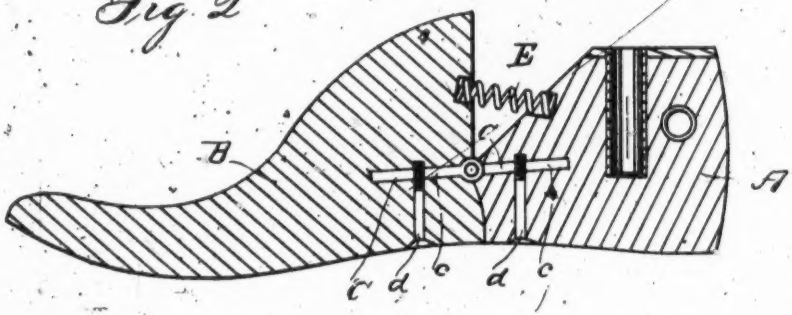
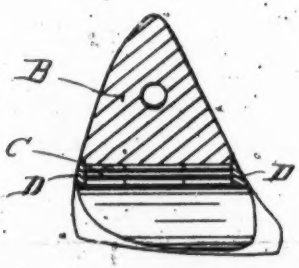



Fig. 3




WITNESSES:

Otis D. Swett.

L. W. Hyde.

INVENTOR

Eugene A. Burns.

BY

Thomas P. Simpson.

ATTORNEY

# UNITED STATES PATENT OFFICE.

EUGENE AGUSTUS BURNS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WARREN CASE.

## LAST.

SPECIFICATION forming part of Letters Patent No. 622,941, dated April 11, 1899.

Application filed July 23, 1898. Serial No. 686,751. (No model.)

*To all whom it may concern:*

Be it known that I, EUGENE AGUSTUS BURNS, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Lasts; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to that well-known class of lasts which are transversely divided to form a front and rear section, so as to permit the last to be longitudinally shortened when it is intended to withdraw it from the boot or shoe. In this way no unnecessary strain is put upon the upper. The sections are connected at their meeting faces by hinge-joints, so that the rear or heel section may be turned up. The great desideratum is to keep this heel-section securely in place in the shoe by a yielding force, so that in withdrawing the last from the shoe the motion in the arc of a circle will be gradual as the front section is drawn back.

Figure 1 of the drawings is an elevation of the inner side of the last, showing the two sections in alinement; Fig. 2, a longitudinal vertical section, and Fig. 3 a vertical cross-section passing through the hinge-pintle.

In the drawings, A represents the rear or heel section, and B the front or toe section, and C the strap-hinge, which connects them together a little below the middle of the altitude of the last. This enables the heel-section to turn on the pintle without friction against the back of the shoe, the rear of section A being made on a curve in the usual manner. The straps *c c* of the hinge are preferably held by the screws *d d*, while at each end of the pintle is arranged a reinforcement D, made of leather or rubber.

E is a spiral spring, whose ends are secured in opposite holes of the two sections, the face of section A being cut away to form an acute angle with the perpendicular face of section B. This allows section A to move on the hinge-pintle in the desired arc.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new is—

A shoe or boot last having the two hinge-connected separate parts A B provided with an intermediate angular space at the upper part, and across this space with a spiral spring E that holds the opposite faces apart; all arranged as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE AGUSTUS BURNS.

Witnesses:
WARREN CASE,
DANIEL B. HUBBARD.

150

No. 638,297. Patented Dec. 5, 1899.

F. O. THOMPSON.

LOCK FOR HINGED SHOE LASTS.

(Application filed Mar. 18, 1899.)

(No Model.)

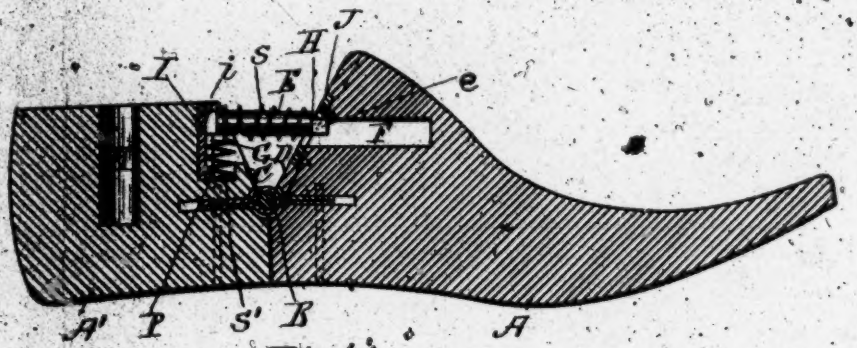



Fig. 1.

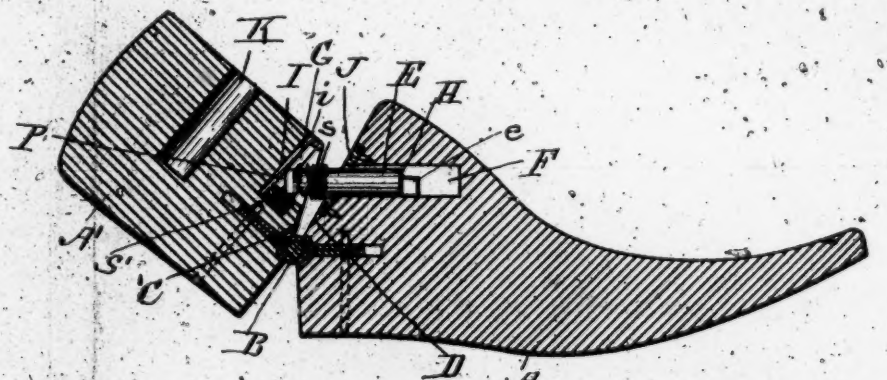



Fig. 2.

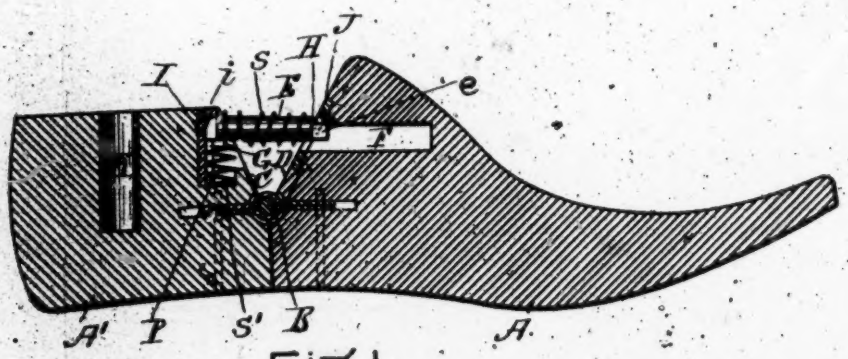



Fig. 1.

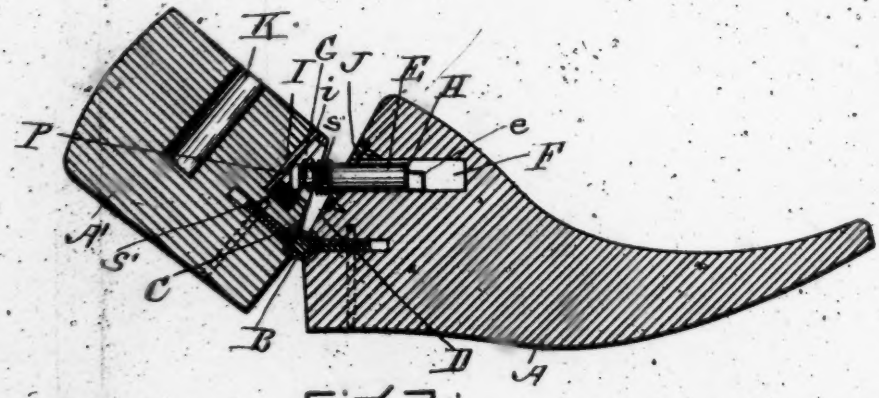



Fig. 2.

WITNESSES

E. J. Groll
S. G. O. Swanson.

INVENTOR

Frederic Oscar Thompson
By his attorneys,
Robert C. Coleman

# UNITED STATES PATENT OFFICE.

FREDERICK OSCAR THOMPSON, OF BROCKTON, MASSACHUSETTS.

## LOCK FOR HINGED SHOE-LASTS.

SPECIFICATION forming part of Letters Patent No. 638,297, dated December 5, 1899.

Application filed March 18, 1899. Serial No. 709,574. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK OSCAR THOMPSON, a citizen of the United States of America, and a resident of Brockton, county of Plymouth, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Locks for Hinged Shoe-Lasts, of which the following is a specification.

My invention relates to hinged or breakdown shoe-lasts. It is designed to hold a hinged shoe-last rigidly extended in its normal position while in use and at the same time to render it capable of being readily and instantly folded and shortened for the purpose of withdrawing it from or inserting it in the shoe without danger of breaking or crippling the shank or the upper of the shoe. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section showing the position of my device while the last is extended and in its normal position and locked, and Fig. 2 is a vertical longitudinal section showing the position of my device when the last is unlocked and folded.

The drawings show an ordinary hinged or folding shoe-last consisting of a fore part A and a heel part A', transversely separated at or near the shank, hinged together at B, and having angularly-separating surfaces D and C on the fore and heel parts, respectively, above the hinge B and the usual jack-spindle socket K in the heel-section.

The bolt E in the angular space between the separating-faces C and D of the heel and fore parts of the last constitutes the strut whereby the last is held extended. The strut E fits loosely at one end into the vertical slot or groove G in the separating-face C and bears against the plate I, which forms the inner [illegible] The slot G constitutes [illegible] strut or bolt E when the latter is in its lock position.

S is a coiled spring secured to the strut E near the end which bears upon plate I. The other end of spring S bears upon or is secured to the washer-plate J. Spring S performs the double office of holding the end of the strut in its socket G and against plate I and forcing the last into its extended position. The plate I and washer-plate J serve as abutments which engage with the ends of the strut or bolt E when the last is extended and the bolt is in its lock-position. Another spiral spring S' is lodged in the pocket P, which is an extension of the slot or socket G and is attached at its outer end to the bolt E at a point between the points of engagement I and J. Spring S' thus yieldingly holds the strut in engagement at both ends when the last is extended.

F is a recess in the fore part of the last for receiving the strut E, having its mouth in the separating-surface D of the fore part. When the last is extended and the strut or bolt in the position shown in Fig. 1, the last is rigidly locked and capable of withstanding any of the strains and pressures brought to bear upon it, the bolt preventing any pivotal motion of the sections.

The parts being constructed and arranged as shown, the operation of my improved last-lock is as follows: When it is desired to shorten the last by the displacement of the sections, as shown in Fig. 2, for the purpose of removing the last from a shoe, the operator merely has to press on the bolt E, overcoming the stress of the spring S', so that the shoulder H is thrown out of engagement with the washer-plate J. The heel part may then be folded up by a force sufficient to overcome the stress of spring S, bringing the surfaces

FREDERICK OSCAR THOMPSON, OF BROCKTON, MASSACHUSETTS.

# LOCK FOR HINGED SHOE-LASTS.

SPECIFICATION forming part of Letters Patent No. 638,297, dated December 5, 1899.

Application filed March 16, 1899. Serial No. 709,574. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK OSCAR THOMPSON, a citizen of the United States of America, and a resident of Brockton, county of Plymouth, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Locks for Hinged Shoe-Lasts, of which the following is a specification.

My invention relates to hinged or breakdown shoe-lasts. It is designed to hold a hinged shoe-last rigidly extended in its normal position while in use and at the same time to render it capable of being readily and instantly folded and shortened for the purpose of withdrawing it from or inserting it in the shoe without danger of breaking or crippling the shank or the upper of the shoe. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section showing the position of my device while the last is extended and in its normal position and locked, and Fig. 2 is a vertical longitudinal section showing the position of my device when the last is unlocked and folded.

The drawings show an ordinary hinged or folding shoe-last consisting of a fore part A and a heel part A', transversely separated at or near the shank, hinged together at B, and having angularly-separating surfaces D and C on the fore and heel parts, respectively, above the hinge B and the usual jack-spindle socket K in the heel-section.

The bolt E in the angular space between the separating-faces C and D of the heel and fore parts of the last constitutes the strut whereby the last is held extended. The strut E fits loosely at one end into the vertical slot or groove G in the separating-face C and bears against the plate I, which forms the inner wall of the slot G. The slot G constitutes a socket for holding the end of the bolt E. The other end of the strut or bolt E is provided with a shoulder H, which when the strut is in its lock position abuts against the washer-plate or lip-plate J about the mouth of the recess F, the tenon *e* extending into the recess F. The plate I is provided with a ledge *i* at its outer end, which engages the end of the strut or bolt E when the latter is in its lock position.

S is a coiled spring secured to the strut E near the end which bears upon plate I. The other end of spring S bears upon or is secured to the washer-plate J. Spring S performs the double office of holding the end of the strut in its socket G and against plate I and forcing the last into its extended position. The plate I and washer-plate J serve as abutments which engage with the ends of the strut or bolt E when the last is extended and the bolt is in its lock position. Another spiral spring S' is lodged in the pocket P, which is an extension of the slot or socket G and is attached at its outer end to the bolt E at a point between the points of engagement I and J. Spring S' thus yieldingly holds the strut in engagement at both ends when the last is extended.

F is a recess in the fore part of the last for receiving the strut E, having its mouth in the separating-surface D of the fore part. When the last is extended and the strut or bolt in the position shown in Fig. 1, the last is rigidly locked and capable of withstanding any of the strains and pressures brought to bear upon it, the bolt preventing any pivotal motion of the sections.

The parts being constructed and arranged as shown, the operation of my improved last-lock is as follows: When it is desired to shorten the last by the displacement of the sections, as shown in Fig. 2, for the purpose of removing the last from a shoe, the operator merely has to press on the bolt E, overcoming the stress of the spring S', so that the shoulder H is thrown out of engagement with the washer-plate J. The heel part may then be folded up by a force sufficient to overcome the stress of spring S, bringing the surfaces C and D together, the bolt E disappearing into the recess F, while its opposite abutting end acting as a movable pivot slips in the groove or socket G. When relieved of the force required to break and fold the last, spring S pushes the two sections of the last into their extended position and at the same time pushes the bolt E out of the recess F. Spring S' at the same time automatically throws the strut

into its lock position, as shown in Fig. 1, with its ends in engagement with the ledge *i* and lip-plate J, respectively. In relasting a shoe—*i. e.*, in reinserting into a shoe a last that has been previously withdrawn—the last is folded and shortened in the manner already described and the fore part is inserted in the corresponding part of the shoe, after which the heel-section is forced into its extended position, thus lengthening the last in the shoe, whereupon the spring S' immediately throws the bolt E in its lock position. It will be seen that the automatic locking of the last is an important improvement in lasts of this character over devices which require a separate motion to lock the last.

It is obvious that the lock may be reversed and the recess be in the heel part and the socket or slot for the pivot end of the strut in the fore part of the last. I prefer to have the pivot end of the strut provided with two parallel faces to fit into the slot G to prevent the strut from turning and also to have the tenon on the shoulder end of the strut rectangular and a rectangular mortise provided in the lip-plate J for receiving the tenon. It is obvious, however, that the same objects would be attained by providing a mortise or notch in the upper side of the recess F near its mouth adapted to receive the end of the strut with or without a shoulder and tenon. When the last is not in use, it is desirable that its parts should be in their extended position and rigid, as there is less likelihood of the parts of the last being broken or strained when the latter is moved about a factory than when the parts are permitted loosely to swing upon each other. This object is attained automatically and without any attention on the part of the operator by the spring S, which throws the parts into their extended position, where they are automatically locked, as already described; but the chief function of spring S is to hold the pivot end of the bolt E in its socket and against plate I.

The chief advantages of the particular structure which I have described as an embodiment of my invention are that it contains no articular parts or joints, thus rendering it less expensive and less likely to get out of order than a structure containing articular parts or joints. Moreover, the bolt can be readily removed from the last by the hand, when desired, by simply throwing it out of its lock position and compressing the spring S. On the other hand, it cannot come out of the last unless taken out; but the most important

be moved from its lock position in response to the application of force, and means whereby the said bolt is normally urged toward and held in its lock position, substantially as described.

2. A shoe-last comprising a fore part and a heel part hinged together, a bolt between the separating-faces of the fore part and heel part of the last, the bolt adapted to lock the sections of the last in extended position, and to be moved from its lock position in response to the application of force, and means whereby the said bolt is normally urged toward and held in its lock position, and means whereby the two parts of the last are normally urged into their extended position, substantially as described.

3. In a hinged shoe-last, the combination with the hinged fore and heel portions of the last, of a bolt located between and abutting against the fore and heel portions of the last, a spring normally urging the said bolt toward and holding it in its lock position, the said bolt adapted to be moved from its lock position by the application of force against the pressure of its spring, substantially as described.

4. In a hinged shoe-last, the combination with the hinged fore and heel portions of the last, of a bolt located between and abutting against the fore and heel portion of the last, a spring normally urging the said bolt toward and holding it in its lock position, the said bolt adapted to be moved from its lock position by the application of force against the pressure of its spring and means whereby the two parts of the last are normally urged into their extended position, substantially as described.

5. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last of a rigid bolt, abutments in the separating-surfaces of the heel and fore parts respectively, normally in engagement with the said bolt, a recess in one of the hinged portions of the last proportioned and adapted to receive the bolt which is movable from its abutments into engagement with the recess, substantially as described.

6. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last of a rigid bolt, abutments in the separating-surfaces of the heel and fore parts, respectively, normally in engagement with the said bolt, a recess in one of the hinged portions of the last proportioned and adapted to receive the bolt which is movable from its

the heel-section is forced into its extended position, thus lengthening the last in the shoe, whereupon the spring S' immediately throws the bolt E in its lock position. It will be seen that the automatic locking of the last is an important improvement in lasts of this character over devices which require a separate motion to lock the last.

It is obvious that the lock may be reversed and the recess be in the heel part and the socket or slot for the pivot end of the strut in the fore part of the last. I prefer to have the pivot end of the strut provided with two parallel faces to fit into the slot G to prevent the strut from turning and also to have the tenon on the shoulder end of the strut rectangular and a rectangular mortise provided in the lip-plate J for receiving the tenon. It is obvious, however, that the same objects would be attained by providing a mortise or notch in the upper side of the recess F near its mouth adapted to receive the end of the strut with or without a shoulder and tenon. When the last is not in use, it is desirable that its parts should be in their extended position and rigid, as there is less likelihood of the parts of the last being broken or strained when the latter is moved about satisfactory than when the parts are permitted loosely to swing upon each other. This object is attained automatically and without any attention on the part of the operator by the spring S, which throws the parts into their extended position, where they are automatically locked, as already described; but the chief function of spring S is to hold the pivot end of the bolt E in its socket and against plate I.

The chief advantages of the particular structure which I have described as an embodiment of my invention are that it contains no articular parts or joints, thus rendering it less expensive and less likely to get out of order than a structure containing articular parts or joints. Moreover, the bolt can be readily removed from the last by the hand, when desired, by simply throwing it out of its lock position and compressing the spring S. On the other hand, it cannot come out of the last unless taken out; but the most important feature of my invention is the arrangement of the parts whereby the bolt is automatically urged toward and held in its lock position.

What I claim, and desire to secure by Letters Patent, is—

1. A shoe-last comprising a fore part and a heel part hinged together, a bolt between the separating-faces of the fore part and heel part of the last, the bolt adapted to lock the sections of the last in extended position, and to be moved from its lock position in response to the application of force, and means whereby the said bolt is normally urged toward and held in its lock position, substantially as described.

2. In a hinged shoe-last, the combination with the hinged fore and heel portions of the last, of the bolt adapted to lock the sections of the last in extended position, and to be moved from its lock position in response to the application of force, and means whereby the said bolt is normally urged toward and held in its lock position, and means whereby the two parts of the last are normally urged into their extended position, substantially as described.

3. In a hinged shoe-last, the combination with the hinged fore and heel portions of the last, of a bolt located between and abutting against the fore and heel portions of the last, a spring normally urging the said bolt toward and holding it in its lock position, the said bolt adapted to be moved from its lock position by the application of force against the pressure of its spring, substantially as described.

4. In a hinged shoe-last, the combination with the hinged fore and heel portions of the last, of a bolt located between and abutting against the fore and heel portion of the last, a spring normally urging the said bolt toward and holding it in its lock position, the said bolt adapted to be moved from its lock position by the application of force against the pressure of its spring and means whereby the two parts of the last are normally urged into their extended position, substantially as described.

5. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last of a rigid bolt, abutments in the separating-surfaces of the heel and fore parts respectively, normally in engagement with the said bolt, a recess in one of the hinged portions of the last proportioned and adapted to receive the bolt which is movable from its abutments into engagement with the recess, substantially as described.

6. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last of a rigid bolt, abutments in the separating-surfaces of the heel and fore parts, respectively, normally in engagement with the said bolt, a recess in one of the hinged portions of the last proportioned and adapted to receive the bolt which is movable from its abutments into engagement with the recess, means whereby the spreader is normally urged into engagement with its abutments, substantially as described.

7. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last of a rigid bolt, abutments in the separating-surfaces of the heel and fore parts, respectively, normally in engagement with the said bolt, a recess in one of the hinged por-

tions of the last proportioned and adapted to receive the bolt which is movable from its abutments into engagement with the recess, means whereby the bolt is normally urged into engagement with its abutments and means whereby the separating-surfaces of the last are normally urged apart, substantially as described.

8. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last of a rigid bolt, a socket in one of the separating-faces of said parts in engagement with one end of the bolt, a recess in the other part of the last adapted to receive the bolt, a plate across the mouth of said recess normally in engagement with the other end of said bolt; means for urging the bolt toward and yieldingly holding it in its lock position, means for holding one end of the bolt in engagement with the socket, substantially as described.

9. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last, of a rigid bolt, a socket in one of the separating-faces of said parts in engagement with one end of the bolt, a recess in the other part of the last adapted to receive the bolt, a plate across the mouth of said recess normally in engagement with the other end of said bolt, means for urging the bolt toward and yieldingly holding it in its lock position, means for urging one end of the bolt into engagement with the socket and the last into its extended position, substantially as described.

10. In a hinged shoe-last, the combination with the hinged fore and heel parts of the last, of a rigid bolt, a vertical slot in one of the separating-faces of said last provided with a ledge at its outer end normally in engagement with one end of the bolt, a recess in the other part of the last adapted to receive the bolt, a plate across the mouth of said recess normally in engagement with the other end of said bolt, means for urging one end of the bolt toward and holding it in said slot and at the same time forcing the last into its extended position, means for urging the ends of the bolt toward and yieldingly holding them in engagement with said ledge and plate respectively, substantially as described.

Signed by me at Boston, Massachusetts, this 15th day of March, 1899.

FREDERICK OSCAR THOMPSON.

Witnesses:

PATRICK J. CANTWELL,

E. F. GROLL.

156

660,321. Patented Oct. 23, 1900.

F. B. ABBOTT.

LAST.

(Application filed Jan. 17, 1900.)

(No Model.)

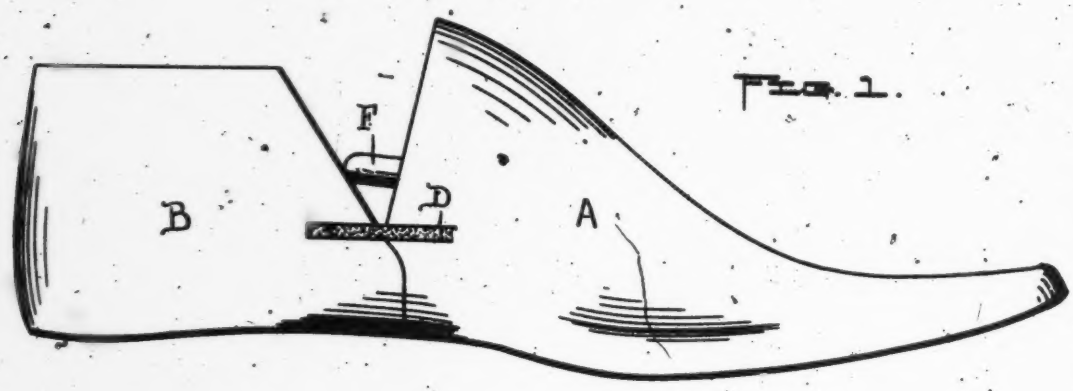



FIG. 1.

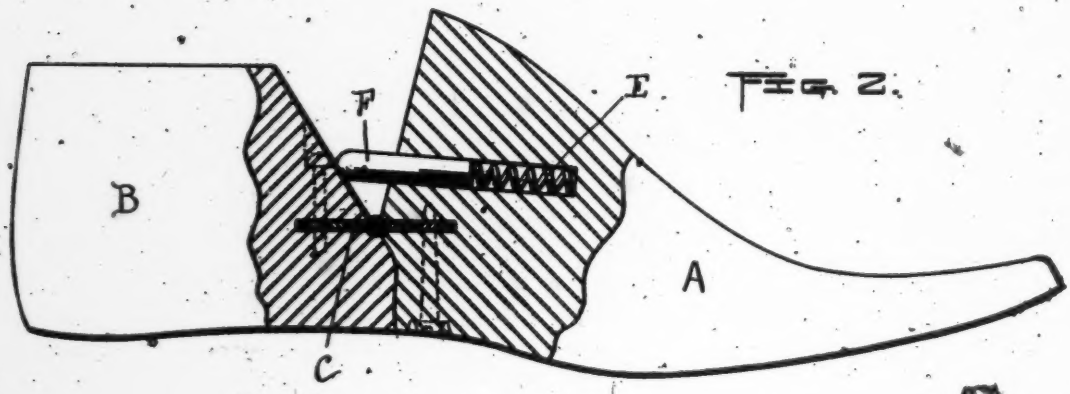



FIG. 2.

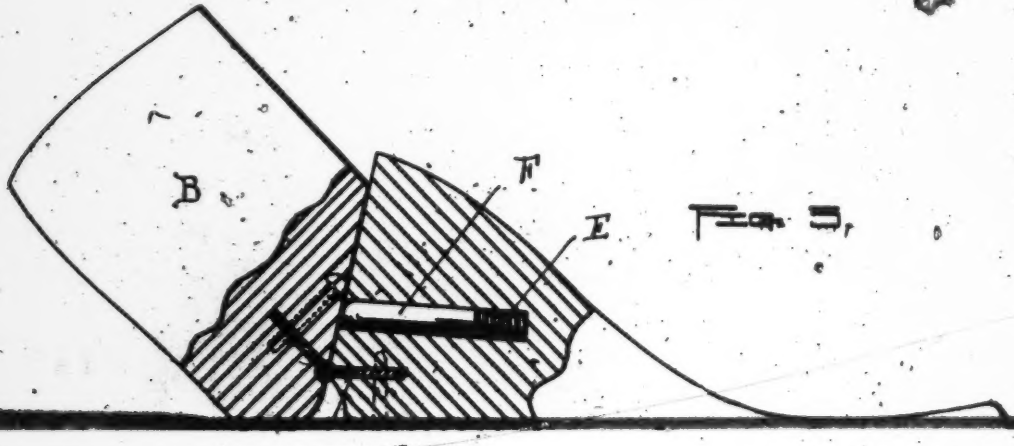



FIG. 3.

# UNITED S

FREDERIC B. ABBOTT,
PORTER &

SPECIFICATION forming

Application

*To all whom it may concer*

Be it known that I, FREDER
citizen of the United States, re
in the county of Essex and Sta
setts, have invented a new and
which the following is a speci

This invention relates to th
having body and heel portion
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vention is to provide a hing
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lasted on any one particular l

To this end the invention
parts and combinations of par
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In the accompanying drawi
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preferably employed, and Fig

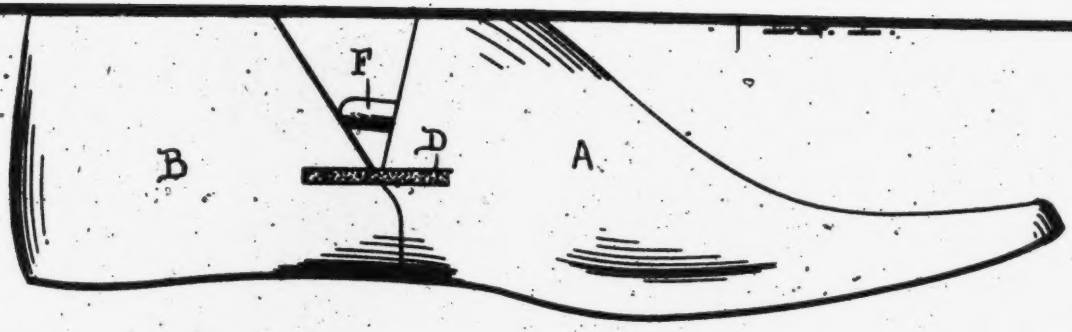



Fig. 2.

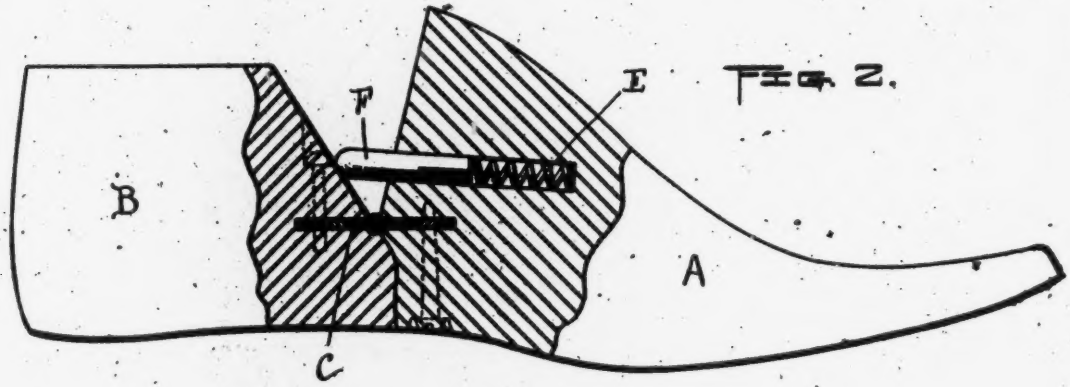
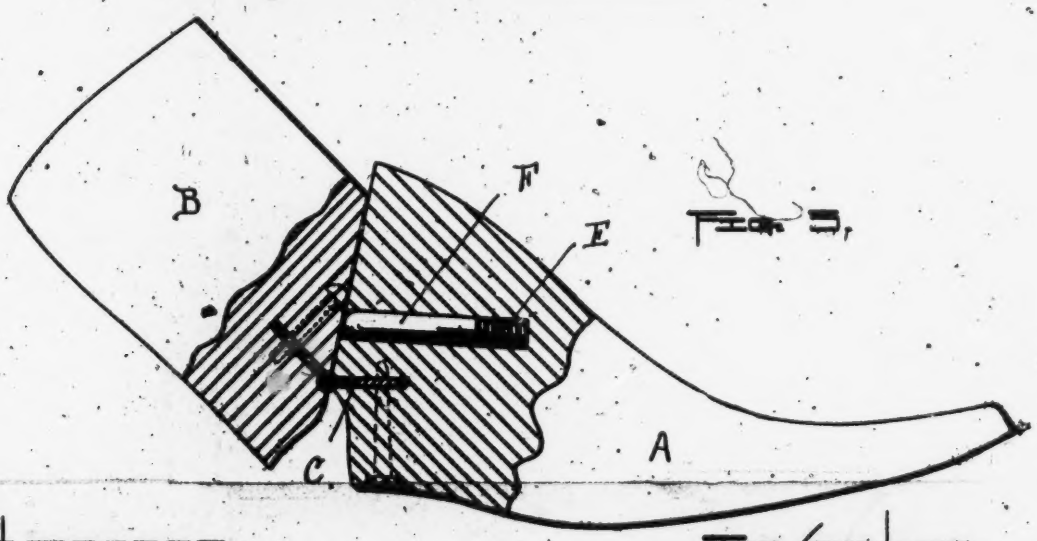



Fig. 3.




Witnesses,

M. C. Regan.

E. H. Gardner

Inventor;

F. B. Abbott.

By Southgate & Southgate Attys

# UNITED STATES PATENT OFFICE.

FREDERIC B. ABBOTT, OF LYNN, MASSACHUSETTS, ASSIGNOR TO SAMUEL PORTER & CO., OF WORCESTER, MASSACHUSETTS.

## LAST.

SPECIFICATION forming part of Letters Patent No. 660,321, dated October 23, 1900.

Application filed January 17, 1899. Serial No. 702,385. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERIC B. ABBOTT, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented a new and useful Last, of which the following is a specification.

This invention relates to that class of lasts having body and heel portions connected together by hinges; and the object of this invention is to provide a hinged last of this class with a spring for normally holding the parts of the last in line with each other, so as to insure uniformity in the size of shoes lasted on any one particular last.

To this end the invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claim at the end of this specification.

In the accompanying drawings, Figure 1 is a side view of a last constructed according to this invention. Fig. 2 is a side view partially broken away to show the form of spring preferably employed, and Fig. 3 is a similar view showing the parts of the last in a different relative position.

In the use of a last in which the body portion and heel portion are hinged together, so that the last can be withdrawn by turning up the heel portion, as illustrated in Fig. 3, it happens frequently that the parts of the last are not fully straightened out into line with each other during the lasting operation, and this in practice has been found to be objectionable, as it results in more or less variation in the length of shoes lasted upon the same last. To overcome this objection, I have provided a hinged last in which a spring is arranged to normally hold the parts in line with each other, so as to insure uniformity in the shoes lasted thereon, while at the same time the [illegible] to yield or have sufficient

or other flexible material, as D. The hinge C is secured in place by screws or rivets, as shown by dotted lines in Figs. 2 and 3. A socket is bored in the body portion A of the last to receive a spring E, which engages the end of a wooden or metal dowel or pin F.

When the body and heel portions of the last are turned with respect to each other to draw a last, as illustrated in Fig. 3, the pin F will be forced back in its socket, compressing the spring E; but the spring E has sufficient elasticity to normally hold the parts of the last in line with each other with sufficient stiffness to insure shoes lasted being of a uniform size. By this arrangement of pin or plug F and spring E, I have provided a construction which in practice I have found will give that degree of rigidity or stiffness which is required in the use of hinged lasts for holding the body portion and heel parts in line with each other during the lasting operation—that is to say, by employing a last having body and heel parts with inclined faces leaving an angular space above the hinge and by employing a coiled spring and pin mounted in one of the said parts, so as to extend across the open angular space and bear upon the inclined face of the other part at an oblique angle thereto, I have provided an arrangement by means of which a comparatively weak spring will secure sufficient leverage to hold or lock the parts of the last in line with each other, so that a considerable force can be exerted without closing or operating the hinge of the last. Furthermore, by this arrangement I have provided a construction in which the degree of stiffness or locking action of the plug or pin can be varied without changing the stiffness of the springs employed—that is to say, by simply boring sockets for receiving the spring at various angles

to vary the [illegible]

# LAST.

SPECIFICATION forming part of Letters Patent No. 660,321, dated October 23, 1900.

Application filed January 17, 1899. Serial No. 702,385. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERIC B. ABBOTT, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented a new and useful Last, of which the following is a specification.

This invention relates to that class of lasts having body and heel portions connected together by hinges; and the object of this invention is to provide a hinged last of this class with a spring for normally holding the parts of the last in line with each other, so as to insure uniformity in the size of shoes lasted on any one particular last.

To this end the invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claim at the end of this specification.

In the accompanying drawings, Figure 1 is a side view of a last constructed according to this invention. Fig. 2 is a side view partially broken away to show the form of spring preferably employed, and Fig. 3 is a similar view showing the parts of the last in a different relative position.

In the use of a last in which the body portion and heel portion are hinged together, so that the last can be withdrawn by turning up the heel portion, as illustrated in Fig. 3, it happens frequently that the parts of the last are not fully straightened out into line with each other during the lasting operation, and this in practice has been found to be objectionable, as it results in more or less variation in the length of shoes lasted upon the same last. To overcome this objection, I have provided a hinged last in which a spring is arranged to normally hold the parts in line with each other, so as to insure uniformity in the shoes lasted thereon, while at the same time the spring is arranged to yield or have sufficient flexibility so that the last can be readily withdrawn from a shoe.

Referring to the drawings and in detail, a last constructed according to my invention preferably comprises a body portion A and a heel portion B. A kerf is cut in the portions A and B to receive a hinge, as C, the sides of the kerf being preferably filled with leather or other flexible material, as D. The hinge C is secured in place by screws or rivets, as shown by dotted lines in Figs. 2 and 3. A socket is bored in the body portion A of the last to receive a spring E, which engages the end of a wooden or metal dowel or pin F.

When the body and heel portions of the last are turned with respect to each other to draw a last, as illustrated in Fig. 3, the pin F will be forced back in its socket, compressing the spring E; but the spring E has sufficient elasticity to normally hold the parts of the last in line with each other with sufficient stiffness to insure shoes lasted being of a uniform size. By this arrangement of pin or plug F and spring E, I have provided a construction which in practice I have found will give that degree of rigidity or stiffness which is required in the use of hinged lasts for holding the body portion and heel parts in line with each other during the lasting operation—that is to say, by employing a last having body and heel parts with inclined faces leaving an angular space above the hinge and by employing a coiled spring and pin mounted in one of the said parts, so as to extend across the open angular space and bear upon the inclined face of the other part at an oblique angle thereto, I have provided an arrangement by means of which a comparatively weak spring will secure sufficient levefage to hold or lock the parts of the last in line with each other, so that a considerable force can be exerted without closing or operating the hinge of the last. Furthermore, by this arrangement I have provided a construction in which the degree of stiffness or locking action of the plug or pin can be varied without changing the stiffness of the springs employed—that is to say, by simply boring sockets for receiving the spring at various angles to vary the inclination of the pin or plug F with respect to the surface that it engages the pin or plug F will hold the parts of the last in line with each other with greater or less degrees of stiffness, as may be required.

I am aware that changes may be made in the details of the construction of my last by those who are skilled in the art without departing from the scope of my invention as

expressed in the claim. I do not wish, therefore, to be limited to the form of construction herein illustrated; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

In a last, the combination of a body part, a heel part, a hinge connecting the body and heel parts, said parts having inclined faces leaving an open angular space above the hinge, and a coiled spring and pin mounted in a socket in one of said parts to exert a constant pressure tending to hold the parts of the last in line with each other, said pin being arranged to extend across the open angular space and normally bearing on the inclined face of the other part at an oblique angle thereto, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRED. B. ABBOTT.

Witnesses:

CHAS. B. MEACHAM,

WILLIAM J. BARRY.

No. 764,894. PATENTED JULY 12, 1904.

G. A. KRENTLER.

LAST.

APPLICATION FILED JAN. 11, 1901.

NO MODEL.

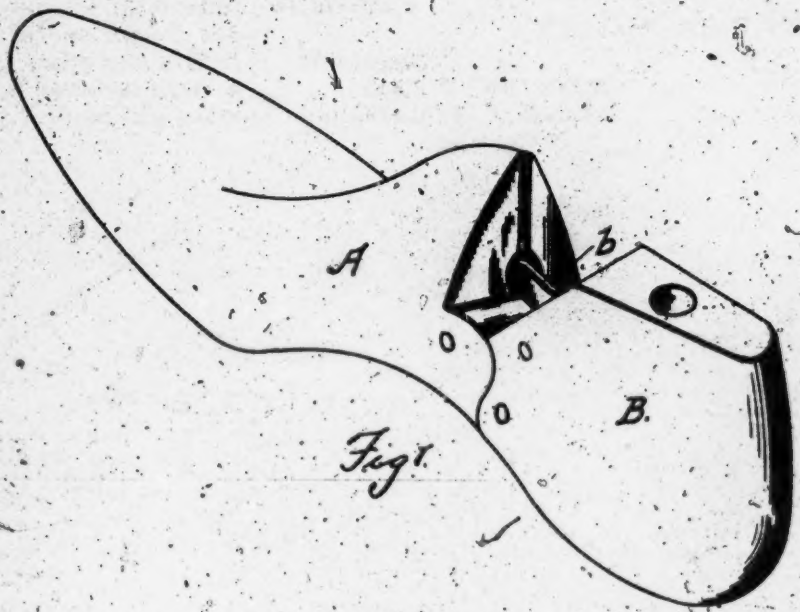



Fig. 1.

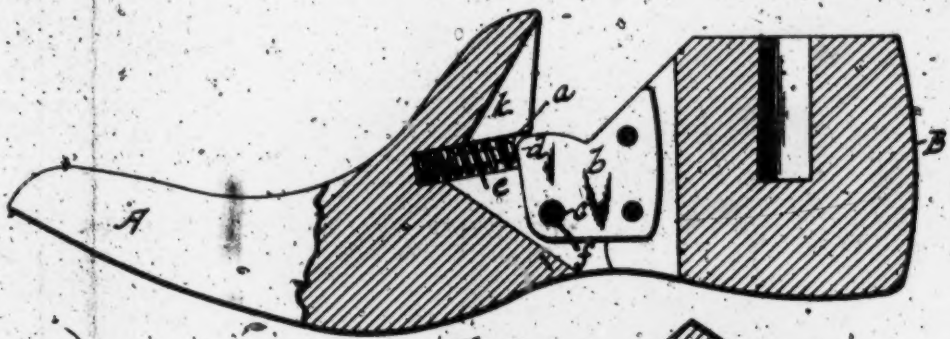
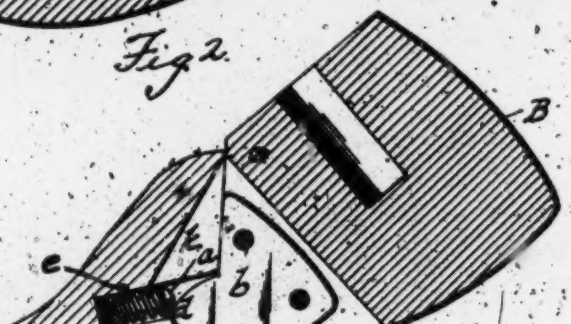



Fig. 2.



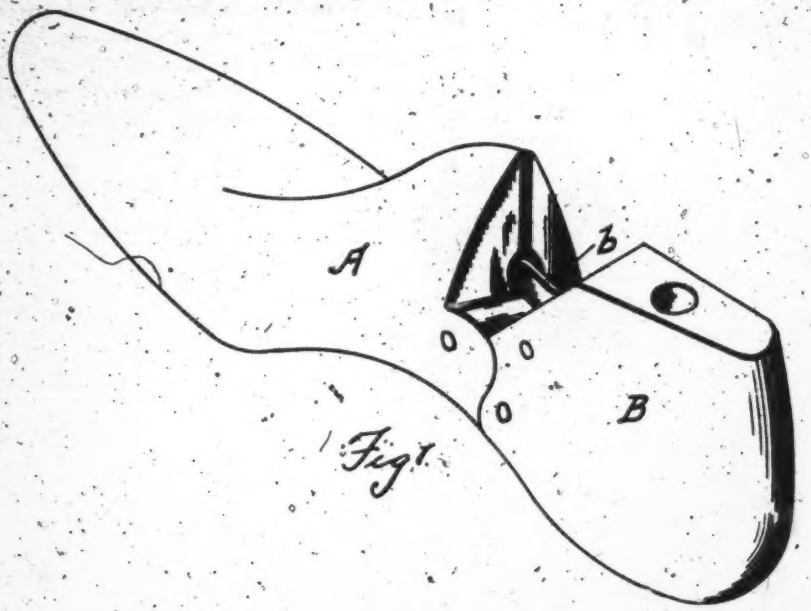



Fig. 1.

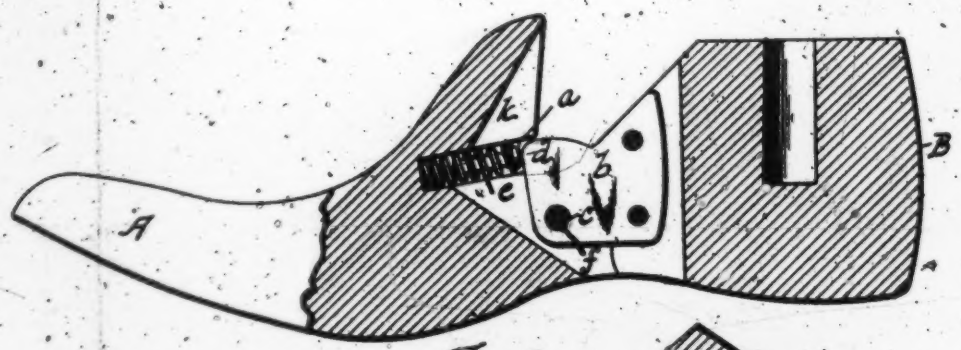



Fig. 2.

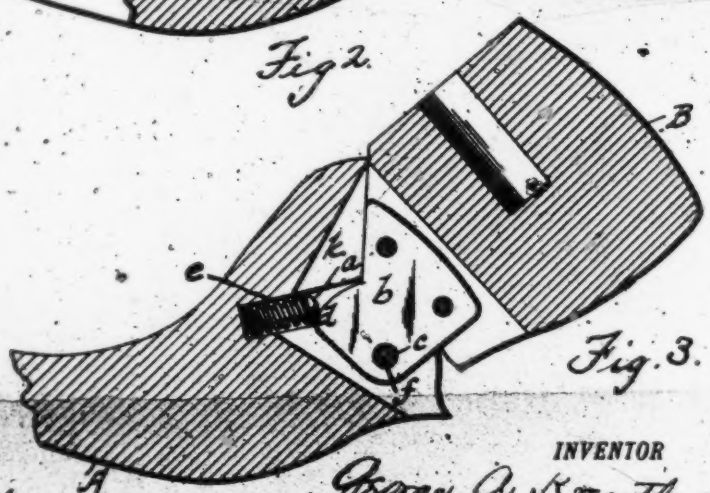



Fig. 3.

WITNESSES

Nat Massey

May & Kott

INVENTOR

George A Koontler

By Parker & Burton

Attorneys.

No. 764,894. Patented July 12, 1904.

# UNITED STATES PATENT OFFICE.

GEORGE A. KRENTLER, OF DETROIT, MICHIGAN, ASSIGNOR TO KRENTLER-ARNOLD HINGE LAST COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF WEST VIRGINIA.

## LAST.

SPECIFICATION forming part of Letters Patent No. 764,894, dated July 12, 1904.

Application filed January 11, 1901. Serial No. 42,839. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. KRENTLER, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Lasts; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to lasts, and has for its object improvements in that class of lasts of which the lasts are made in two parts hinged together at the hollow of the last, the special object of the improvement being to apply to such hinged last a locking attachment arranged to hold the last locked in either its "broken" or "unbroken" position.

In the drawings, Figure 1 shows the last in perspective. Fig. 2 is a longitudinal section showing the leaf of the hinge and the locking attachment. In this figure the last is shown in its unbroken position. Fig. 3 is a longitudinal section showing the same parts; but the last is shown in its broken position.

A and B indicate the toe and heel part of a two-part last in which the knuckle of the part A extends to the rear and is rounded to engage with a concave face of the heel part B. The knuckle on the toe part A is provided with a notch or kerf *k*, into which projects a plate *b*, that is secured to the heel part B. The plate *b* is preferably of metal and is provided above the pintle-hole *c* with a corner

The principle upon which the locking device operates is the crowding or wedging of one part past another part when the heel part is turned on its pivot, and, as shown, one of these parts (the pin *a*) is made yielding and the other part is made angular, so that it will act to crowd or offer resistance when being moved from either position of rest and will tend to maintain or lock the last parts in said positions of rest. If the wedging or moving part were made concentric with the pintle *f*, there would be no point of special resistance; but by making it eccentric or providing it with a corner or angularity it coöperates with the opposing resisting-surface to lock the last in operative position.

It is not necessary that the same amount of force be required to straighten the last that it required to break it, the only strength of lock required to hold the last in its broken position being simply enough to prevent it from dropping freely back to its straight position, while it is better that it require considerable force to break the last from its straight position, the straight position being the one it takes when in a shoe in use for lasting purposes and the broken position being a position assumed when it is being inserted in the shoe.

The corner or oblique-angled projection is located at such an intermediate position that it resists movement when the last is being moved from lengthened or from collapsed position, the least resistance being offered when at the very beginning of said movement and said resistance increasing as the last is moved

GEORGE A. KRENTLER, OF DETROIT, MICHIGAN, ASSIGNOR TO KRENTLER-ARNOLD HINGE LAST COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF WEST VIRGINIA.

# LAST.

SPECIFICATION forming part of Letters Patent No. 764,894, dated July 12, 1904.

Application filed January 11, 1901. Serial No. 42,839. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. KRENTLER, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Lasts; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to lasts, and has for its object improvements in that class of lasts of which the lasts are made in two parts hinged together at the hollow of the last, the special object of the improvement being to apply to such hinged last a locking attachment arranged to hold the last locked in either its "broken" or "unbroken" position.

In the drawings, Figure 1 shows the last in perspective. Fig. 2 is a longitudinal section showing the leaf of the hinge and the locking attachment. In this figure the last is shown in its unbroken position. Fig. 3 is a longitudinal section showing the same parts; but the last is shown in its broken position.

A and B indicate the toe and heel part of a two-part last in which the knuckle of the part A extends to the rear and is rounded to engage with a concave face of the heel part B. The knuckle on the toe part A is provided with a notch or kerf *k*, into which projects a plate *b*, that is secured to the heel part B. The plate *b* is preferably of metal and is provided above the pintle-hole *c* with a corner *d*, that projects into the kerf *k* and engages against the head of a pin *a*, that is inserted in a spring *e*, and the spring is inserted in a suitable seat in the toe part A of the last. The pressure of the pin pushed by the spring *e* is exerted against the corner *d* of the plate *b* and tends to hold the parts firmly in either of two positions. When the last is unbroken, as shown in Fig. 2, the pin *a* is forced by the spring against the plate, and the tension presses the plate to the rear, whereby it tends to rotate around the pintle *f*.

The principle upon which the locking device operates is the crowding or wedging of one part past another part when the heel part is turned on its pivot, and, as shown, one of these parts (the pin *a*) is made yielding and the other part is made angular, so that it will act to crowd or offer resistance when being moved from either position of rest and will tend to maintain or lock the last parts in said positions of rest. If the wedging or moving part were made concentric with the pintle *f*, there would be no point of special resistance; but by making it eccentric or providing it with a corner or angularity it coöperates with the opposing resisting surface to lock the last in operative position.

It is not necessary that the same amount of force be required to straighten the last that it required to break it, the only strength of lock required to hold the last in its broken position being simply enough to prevent it from dropping freely back to its straight position, while it is better that it require considerable force to break the last from its straight position, the straight position being the one it takes when in a shoe in use for lasting purposes and the broken position being a position assumed when it is being inserted in the shoe.

The corner or oblique-angled projection is located at such an intermediate position that it resists movement when the last is being moved from lengthened or from collapsed position, the least resistance being offered when at the very beginning of said movement and said resistance increasing as the last is moved from lengthened or collapsed position toward the intermediate position and the resistance decreasing in moving from an intermediate position toward either completely collapsed or lengthened position, and because of this construction and operation the two coöperating wedging or resisting surfaces have what I term a "position of rest" when the heel part has been moved to an extreme position in either direction and the last is entirely collapsed or entirely lengthened. By the term "positions of rest" I mean those positions at

the extreme limits of movement in moving toward which the heel part and fore part have decreasing resistance, and hence tend to stay in said positions instead of tending to move therefrom.

The plate *b* constitutes a pivotal union for hinging the toe part and heel part together with the adjacent faces in sliding contact capable of moving into lengthened relation, as shown in Fig. 2, and into shortened relation, as shown in Fig. 3, the projection *d* of said union cooperating with the spring-actuated pin or plunger *a*, projecting in its path and tending to move in a direction outside of the pivot-point of said union, so that the parts of the last are automatically and yieldingly locked both in lengthened relation and in shortened relation.

While I have herein described the preferred embodiment of my invention, as required by law to do, I am aware that it is capable of being embodied in many other forms and arrangement of parts included within the spirit and scope of my invention, and accordingly I do not intend to limit myself otherwise than as expressed in the appended claims.

What I claim is—

1. In a two-part last, in combination with a toe and a heel part hinged together, a plate secured to one of said parts and extending a corner toward the other of said parts, a spring-impelled pin secured to the last-mentioned part and pressing against the edge of said plate, said corner and pin being constructed to offer yielding and increasing resistance in moving away from lengthened position.

2. In a last having a relatively movable toe and heel part, having oppositely-located kerfs in the adjacent faces, a plate rigidly secured in one of said kerfs and provided with a corner extending into the other of said kerfs, said plate being pivoted to the part of the last to which it is not rigidly secured, a spring-impelled pin located in a cavity adjoining the kerf in the last-named part and pressing against the edge of said plate, and said corner and pin being constructed for the pin to pass yieldingly with increasing resistance over said corner as the parts are moved away from collapsed position and from lengthened position.

3. In a last, having a heel part arranged to turn on a fore part, means for locking said parts in operative position, comprising two cooperating surfaces sliding on each other, one on each part, one of said surfaces having an obtuse-angled projection extending rigidly from one of said last parts to engage with the other of said cooperating surfaces, said surfaces being constructed to offer increasing resistance in moving away from lengthened position, said heel part and said fore part being rigidly held thereby when in lengthened position.

4. In a last, having a heel part arranged to turn on a fore part, means for locking said parts in operative position, comprising an angular wedging-surface moving when one part moves, and a resisting-surface on the other part against which said angular surface bears, one of said surfaces sliding over the other as the parts are turned relatively to each other and constructed to offer increasing resistance in moving away from fully-turned position, said parts being rigidly held thereby when in fully-turned position.

5. In a last, having a heel part arranged to turn on a fore part, means for locking said parts in extended position and in collapsed position, comprising a wedging-surface moving rigidly with one part, and a resisting-surface on the other part, one surface having an obtuse-angled projection and engaging the other surface, said surfaces having a position of rest for automatically holding the last collapsed, and a position of rest for automatically holding the last lengthened, and constructed to offer decreasing resistance in moving from an intermediate position toward either collapsed or lengthened position, and increasing resistance in moving away from collapsed or lengthened position.

6. A transversely-divided last, having adjacent contacting faces, a union pivotally connecting the parts for movement into lengthened relation and into shortened relation, a projection on one end of the union extending out beyond the pivot-point, and a spring-actuated plunger positioned in the path of said projection tending to move in a direction outside the pivot-point, the arrangement of the plunger and projection relative to each other being such that the parts of the last are automatically and yieldingly locked in lengthened and in shortened relation.

In testimony whereof I sign this specification in the presence of two witnesses.

GEORGE A. KRENTLER

Witnesses:
CHARLES F. BURTON,
MAY E. KOTT.

W. A. KRENTLER.

LAST.

APPLICATION FILED SEPT. 12, 1913.

1,094,153.

Patented Apr. 21, 1914

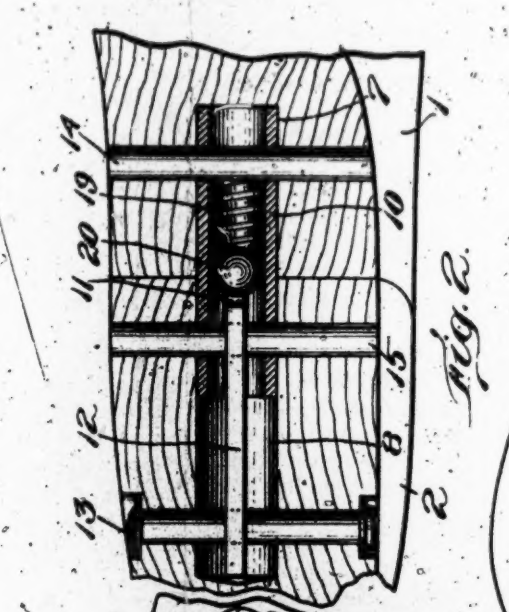


Fig. 2.

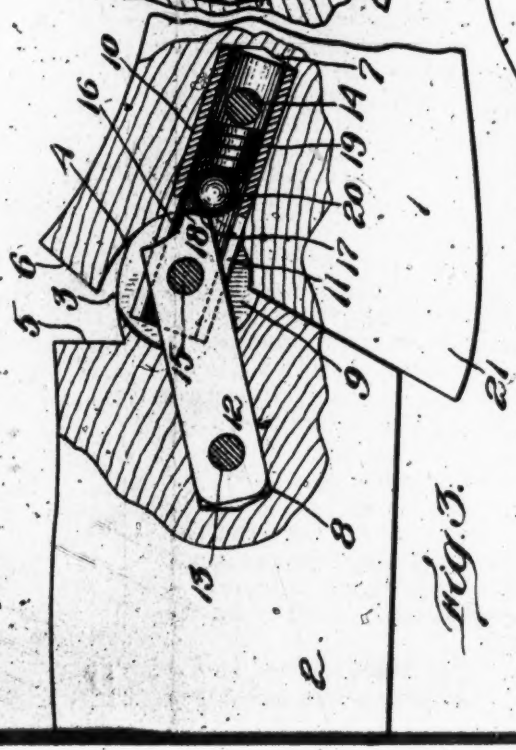


Fig. 3.

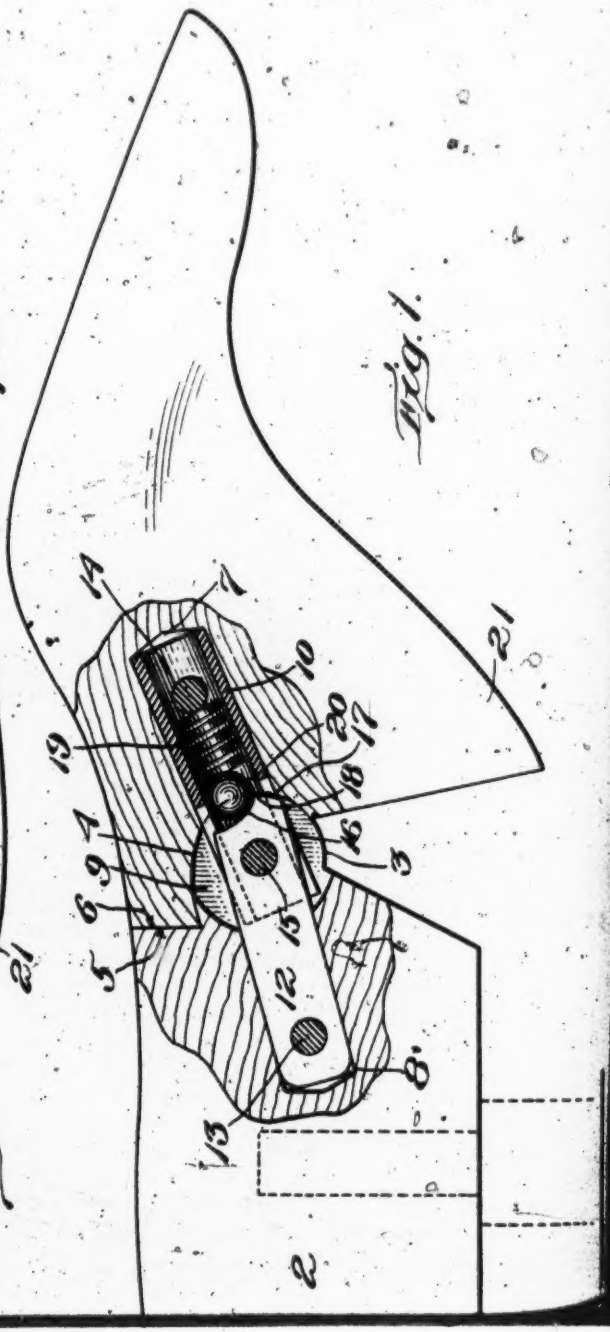


Fig. 1.

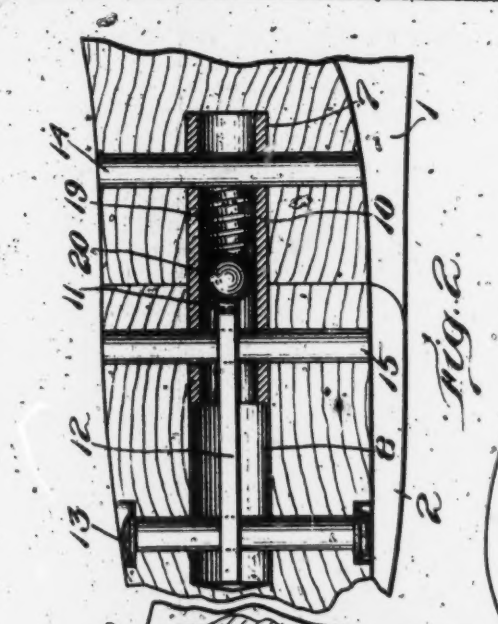


Fig. 2.

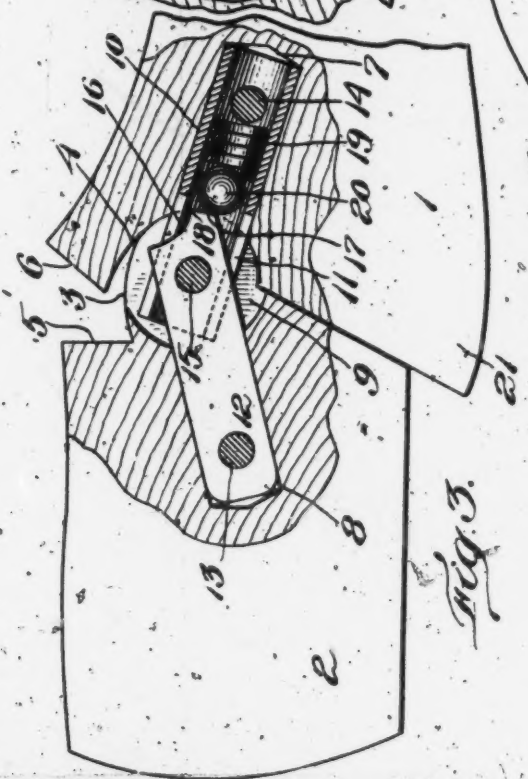


Fig. 3.

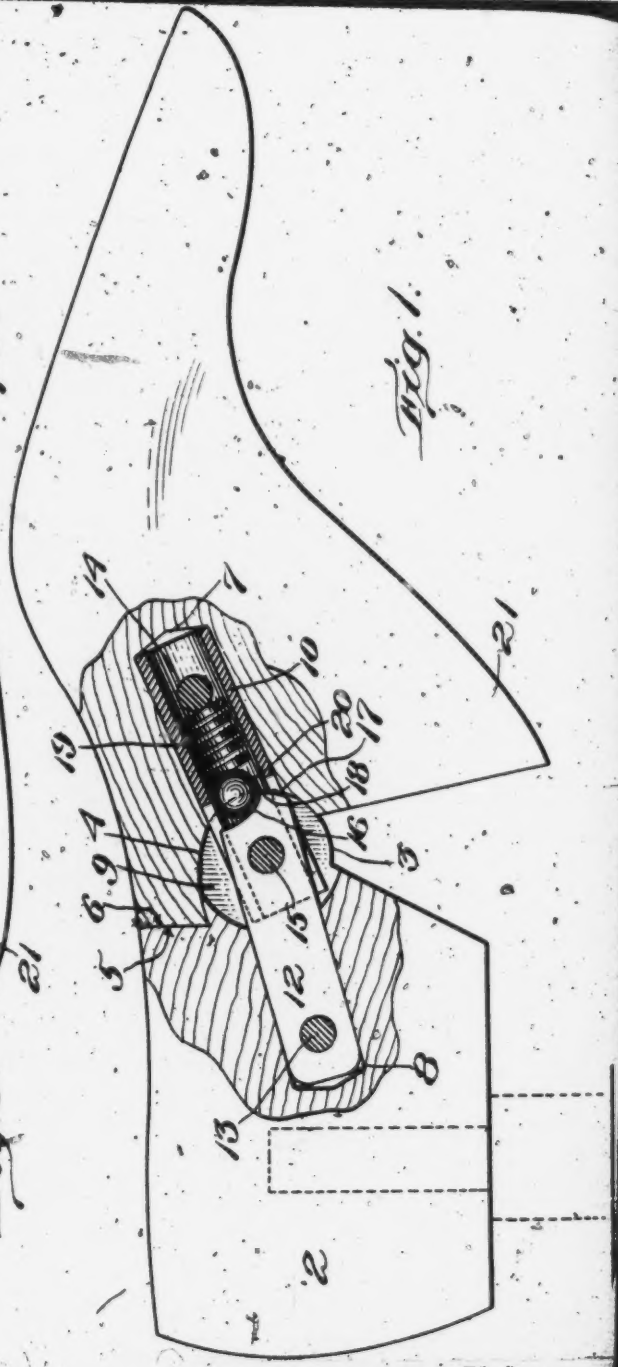


Fig. 1.

Witnesses:
Edward Maxwell
R. J. Hersey

Inventor:
Walter A. Kreitler
by James R. Holden
Atty

# UNITED STATES PATENT OFFICE.

WALTER A. KRENTLER, OF DETROIT, MICHIGAN, ASSIGNOR TO KRENTLER-ARNOLD HINGE LAST COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

## LAST.

1,094,153. Specification of Letters Patent. Patented Apr. 21, 1914.

Application filed September 12, 1913. Serial No. 789,450.

*To all whom it may concern:*

Be it known that I, WALTER A. KRENTLER, a citizen of the United States, and resident of Detroit, county of Wayne, State of Michigan, have invented an Improvement in Lasts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The desirabilty of hinging or jointedly connecting the forepart and heel part of a last has been recognized by the trade, as well as by many inventors for many years, but the adoption of the hinged last has been hampered because of the difficulty of getting great strength at the joint to resist the leveling, heeling and treeing pressures. The jointing devices have always necessitated cutting away so much of the wood as to weaken the last. The progress of shoe manufacture has also brought other requirements forward with more prominence of late years so that it is now considered necessary to have a hinged last provided with a lock which will positively lock the last in extended position, and this has heretofore necessitated still further cutting away of the already frail wood. On the other hand, recent shoe styles have tended toward requiring a last having an extremely thin crown of the forepart and cone of the heel part, so that the problem of jointing these lasts has become still more difficult, as the formation of sockets, kerfs or other provision for a lock at these regions of the last has been thereby rendered practically impossible because of its weakening effect on the already thin and weak crown and cone portions.

My present invention aims to eliminate all the aforesaid disadvantages of the hinged last, my invention being applied to the well-chine, for instance, comes on the wood endwise of the knuckle between the pintle of the hinge and the outer end of the knuckle, and as the wood is short in length at this point, and is in a relatively slender and unsupported position, these lasts, under severe strain, are apt to break or at least yield sufficiently to make the joint loose, and the last consequently useless. I have discovered that this weakness of this knuckle-joint type of last can be overcome, notwithstanding the lessened amount of wood available (as above explained) and the greater pressures and more rapid movements now exacted, by extending the same general kind of dowel-like joint-member as in Patent 936,138, above and anchoring the said extended or prolonged joint-member back in the body of the heel part at a considerable distance from the pintle, and forward in the forepart at a considerable distance from said pintle, so that, instead of the holding strain being borne mostly at the knuckle and brought by the pintle on the frail wood of said knuckle, said knuckle is relieved of said holding strain and is depended upon mostly for its other great strength-giving and last-alining features and functions, while the main holding strain is brought at said two remote anchor points in the heel-part and forepart respectively, where the wood entirely surrounds or envelops the dowel-like ends in its circumferentially uncut integrity and at points where it is thickest and strongest and largest in mass or bulk, and hence best adapted to receive said strain. A further important advantage of my invention is that just mentioned, viz., although having the hinge members extended from the knuckle in opposite directions far into the solid wood, it leaves the wood largely uncut, or in other words, provides a minimum of

Application filed September 12, 1913. Serial No. 789,450.

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The desirabilty of hinging or jointedly connecting the forepart and heel part of a last has been recognized by the trade, as well as by many inventors for many years, but the adoption of the hinged last has been hampered because of the difficulty of getting great strength at the joint to resist the leveling, heeling and treeing pressures. The jointing devices have always necessitated cutting away so much of the wood as to weaken the last. The progress of shoe manufacture has also brought other requirements forward with more prominence of late years so that it is now considered necessary to have a hinged last provided with a lock which will positively lock the last in extended position, and this has heretofore necessitated still further cutting away of the already frail wood. On the other hand, recent shoe styles have tended toward requiring a last having an extremely thin crown of the forepart and cone of the heel part, so that the problem of jointing these lasts has become still more difficult, as the formation of sockets, kerfs or other provision for a lock at these regions of the last has been thereby rendered practically impossible because of its weakening effect on the already thin and weak crown and cone portions.

My present invention aims to eliminate all the aforesaid disadvantages of the hinged last, my invention being applied to the well-known "Kant-break" last, one form of which is shown in U. S. Pat. 936,138, October 5, 1909, which is a type of knuckle last of 608,006, July 26, 1898. This knuckle-joint type of last has proved to be the strongest and most practical and economical from the last-maker's and shoe-manufacturer's standpoints, but the advancing requirements of the trade have become so exacting as above explained that even these lasts fail to stand up under all conditions. In these lasts the pulling or breaking strain, under the buckling pressure of the leveling machine, for instance, comes on the wood endwise of the knuckle between the pintle of the hinge and the outer end of the knuckle, and as the wood is short in length at this point, and is in a relatively slender and unsupported position, these lasts, under severe strain, are apt to break or at least yield sufficiently to make the joint loose, and the last consequently useless. I have discovered that this weakness of this knuckle-joint type of last can be overcome, notwithstanding the lessened amount of wood available (as above explained) and the greater pressures and more rapid movements now exacted, by extending the same general kind of dowel-like joint-member as in Patent 936,138 above and anchoring the said extended or prolonged joint-member back in the body of the heel part at a considerable distance from the pintle, and forward in the forepart at a considerable distance from said pintle, so that, instead of the holding strain being borne mostly at the knuckle and brought by the pintle on the frail wood of said knuckle, said knuckle is relieved of said holding-strain and is depended upon mostly for its other great strength-giving and last-alining features and functions, while the main holding strain is brought at said two remote anchor points in the heel-part and forepart respectively, where the wood entirely surrounds or envelops the dowel-like ends in its circumferentially uncut integrity and at points where it is thickest and strongest and largest in mass or bulk, and hence best adapted to receive said strain. A further important advantage of my invention is that just mentioned, viz., although having the hinge members extended from the knuckle in opposite directions far into the solid wood, it leaves the wood largely uncut, or in other words, provides a minimum of removal of the wood. The advantage of this will be apparent by bearing in mind that necessarily there is only a small and relatively frail amount of wood at the waist of a last anyway, especially a hinged last, and any invention which eliminates the necessity of cutting away this wood, results in making a correspondingly stronger and longer lived last. Also in the preferred embodiment of my invention, I provide anchoring members or hinge parts, which snugly fit the anchor cavities and therefore maintain the last fully and advantageously.

solid and also rigid laterally and vertically as far as possible. This construction likewise enables me to locate the lock at the hinge region and thereby avoid the necessity of cutting into or bringing any strain upon the thin upper portions of the last at the crown of the forepart and cone of the heel part.

I consider one of the most important features of the present invention to be the combination with the above explained arrangement of the automatic locking mechanism within the space occupied by said extended members and at the knuckle, whereby the last when in extended position is automatically locked with sufficient strength to resist the many collapsing pressures and strains applied during the process of shoe manufacture thereon, particularly during the heeling and leveling machine operations and yet the knuckle is not weakened nor any of the wood cut into or removed. This automatic locking feature, while affording a strong and rigid locking of the last in extended position, nevertheless is so devised as to permit the last to be readily flexed by hand for insertion in or removal from a shoe, and preferably this automatic locking feature also is effective to lock the last in either flexed or extended position, preferably with greater locking force when in the latter than when in flexed position. Furthermore, a subordinate advantage is that I so arrange the automatic locking devices that they are entirely concealed from view, affording no exposed portions on which the shoe upper or lining may catch. The locking devices are contained within the same sockets which are cut or bored for the hinge members; this feature is of particular importance in enabling my improved last to be economically manufactured and assembled, as well as in affording a strong construction at the knuckle. The locking devices are formed to exert their locking tension directly upon the metallic members constituting the hinge and do not bear on the wood of either forepart or heel part, such a wooden bearing being objectionable as it quickly wears and eventually becomes loose and so weakens the locking effect.

In the preferred form of my invention as herein illustrated, I provide in the forepart and heel part a simple bored socket, extending to a sufficient extent so that it will tend to take up any side or torsional strains and prevent all tendency of one last-part to shift sidewise relatively to the other last-part. That portion of the heel part into which the tubular member extends is cut away sufficiently to permit the flexing as hereinafter described. The forward portion of the tubular member also is slotted to receive the cooperating hinge member which extends into a socket provided therefor in the heel part. The extreme opposite end portions of each member are pinned or riveted to their respective parts, such fastening going through the solid wood of the last remote from the edge or face of either part. I then provide a pivotal hinge for the two members, which also preferably has a bearing in the wood of one part concentric of the knuckle. In the tubular member I provide a coiled spring which may conveniently bear upon the fastening pin or rivet holding said tubular member to its respective part, *i. e.*, the forepart and so form the outwardly extending end of the other hinge member, that said spring may lock the same either in straightened or flexed position. By this construction, the pivot pin on which the two parts of the last are flexed, although it does go through a part of the wood of one part, *i. e.*, lengthwise of the knuckle, is, nevertheless, relieved entirely of the longitudinal strain thereon, which I have explained above has heretofore tended to break out the wood of the knuckle and thereby spring the last, because of the rivets or fastenings through the remote opposite end parts of each hinge member which has a bearing in the most solid and thickest portions of the wood. Furthermore, both the hinge members are concealed from view and the locking devices are also concealed and have bearings only on the metallic parts constituting the hinge and its securing means.

Referring to the drawings, illustrating the preferred embodiment of my invention, Figure 1 is a side view of my improved last with a portion of the wood of both forepart and heel part broken away to show the hinge, which is shown partly in cross section; Fig. 2 is a fragmentary plan view, showing that portion of the forepart and heel part in cross section in which the hinge members are secured; and Fig. 3 is a frag-

part.

I consider one of the most important features of the present invention to be the combination with the above explained arrangement of the automatic locking mechanism within the space occupied by said extended members and at the knuckle, whereby the last when in extended position is automatically locked with sufficient strength to resist the many collapsing pressures and strains applied during the process of shoe manufacture thereon, particularly during the heeling and leveling machine operations and yet the knuckle is not weakened nor any of the wood cut into or removed. This automatic locking feature, while affording a strong and rigid locking of the last in extended position, nevertheless is so devised as to permit the last to be readily flexed by hand for insertion in or removal from a shoe, and preferably this automatic locking feature also is effective to lock the last in either flexed or extended position, preferably with greater locking force when in the latter than when in flexed position. Furthermore, a subordinate advantage is that I so arrange the automatic locking devices that they are entirely concealed from view, affording no exposed portions on which the shoe upper or lining may catch. The locking devices are contained within the same sockets which are cut or bored for the hinge members; this feature is of particular importance in enabling my improved last to be economically manufactured and assembled, as well as in affording a strong construction at the knuckle. The locking devices are formed to exert their locking tension directly upon the metallic members constituting the hinge and do not bear on the wood of either forepart or heel part, such a wooden bearing being objectionable, as it quickly wears and eventually becomes loose and so weakens the locking effect.

In the preferred form of my invention as herein illustrated, I provide in the forepart and heel part a simple bored socket, extending directly into the center of the wood of each part, where the wood is tough, most massive or thickest and most solid, such bores being made in line with each other and with the pivot point in the knuckle on which the two parts are to be swung. I then provide a tubular hinged member which will snugly fill the socket bored therefor and which will extend from one part, preferably the forepart, into the socket in the knuckle of the other part, *i. e.* the heel part, described. The forward portion of the tubular member also is slotted to receive the cooperating hinge member which extends into a socket provided therefor in the heel part. The extreme opposite end portions of each member are pinned or riveted to their respective parts, such fastening going through the solid wood of the last remote from the edge or face of either part. I then provide a pivotal hinge for the two members, which also preferably has a bearing in the wood of one part concentric of the knuckle. In the tubular member I provide a coiled spring which may conveniently bear upon the fastening pin or rivet holding said tubular member to its respective part, *i. e.*, the forepart and so form the outwardly extending end of the other hinge member, that said spring may lock the same either in straightened or flexed position. By this construction, the pivot pin on which the two parts of the last are flexed, although it does go through a part of the wood of one part, *i. e.*, lengthwise of the knuckle, is, nevertheless, relieved entirely of the longitudinal strain thereon, which I have explained above has heretofore tended to break out the wood of the knuckle and thereby spring the last, because of the rivets or fastenings through the remote opposite end parts of each hinge member which has a bearing in the most solid and thickest portions of the wood. Furthermore, both the hinge members are concealed from view and the locking devices are also concealed and have bearings only on the metallic parts constituting the hinge and its securing means.

Referring to the drawings, illustrating the preferred embodiment of my invention. Figure 1 is a side view of my improved last with a portion of the wood of both forepart and heel part broken away to show the hinge, which is shown partly in cross section; Fig. 2 is a fragmentary plan view, showing that portion of the forepart and heel part in cross section in which the hinge members are secured; and Fig. 3 is a fragmentary side view, partly in cross section, of the last in flexed position.

In the illustrative embodiment of my invention I have utilized that type of last known in the trade as the "Kant-break" last, although the invention is obviously applicable to other types and forms of knuckle joint lasts. The forepart 1 and heel part 2 are of usual external contour, having a knuckle portion 3 formed on the heel part and fitting into a corresponding concave socket or

recess 4 on the forepart, together with a shoulder or vertical bearing face 5 on the heel part, with a coöperating bearing face 6 on an extension of the forepart, this being a feature of the socalled "Kant-break" last. In the forepart I bore a socket 7, lengthwise of the wood-mass and perpendicularly from the pin or pintle at the pivot point on which the two parts are adapted to be flexed which pivot is concentric with the knuckle member 3 and the coöperating recess 4, into the central part of the wood of the forepart, and a corresponding socket 8 into the heel part 2 and similarly located therein. Where this bore cuts the knuckle 3 I cut away a portion thereof as indicated at 9, but of a width corresponding to the width of the tubular dowel member 10, to permit said tubular member 10 which is fitted into the socket 7 to swing during the flexing of the last while at the same time hugging against the sides of the cut as shown best in Fig. 2. The tubular member 10 is formed with a slot 11 in which the coöperating dowel member 12 of the hinge is fitted. The hinge member 12 extends into the socket 8 in the heel part and receives a pin or rivet 13 therethrough, which passes through the solid thick wood of the heel part, and the tubular member 10 receives a corresponding fastening member 14 passing therethrough and fitting within and through the solid thick wood portion of the forepart. The overlapping portions of the hinge members 10 and 12 are suitably bored to receive the pivot pin 15 on which the two parts are flexed, which pivot pin is set through the wood or knuckle 3 concentric with the outer face of said knuckle and with the corresponding face 4 of the forepart, so as to insure smooth, yet snug, tight, turning of the knuckle 3 in the socket cavity 4, as clearly shown in Figs. 1 and 3.

The forward portion of the hinge member 12 is provided with an extension beyond the pivot pin 15, which presents a concave face 16 and a second face 17, each meeting at a point 18, said faces being preferably hardened, or the entire member 12 may be of hardened steel. Within the tubular member 10 is fitted an expansible coiled spring 19, which bears on the fastening 14 and is adapted to exert considerable tension through a hardened steel member 20 normally the ball 20 to be forced beyond the point 18 and permit it to rest on the face 17. In either position with the member 20 in contact with the concave face 16, or resting on the face 17, the last is locked in position. Furthermore, as the last is flexed and as soon as the member 20, (when said member is a ball or the like,) is forced sufficiently beyond the point 18 and begins to traverse either face 17 or 16, the spring 19 will automatically complete the flexing or straightening of the last and will similarly seat the last in either straightened position, as shown in Fig. 1, or in flexed position as shown in Fig. 3.

It will be noted that the wood of both forepart and heel part is cut away to a minimum extent, and futhermore that the hinge members practically fill up the wood so cut away particularly the tubular member 10, and that portion of the hinge member 12 within its socket which is free of the member 10 may also be tubular if desired. I prefer to employ a headed bolt for the fastening member 13, and may also form the pins 13 and 14 as taper or wedge members, thus further forcing the forepart and heel part 2 into close contact around the knuckle 3 in assembling the last. The fastenings 13 and 14 being through the solid uncut wood part of the last at the thickest portions thereof and remote from the abutting faces 3 and 4 effectually prevent the loosening of the hinge at said abutting faces and thus always retain the two parts of the last in firm, close, and unremitting contact, while permitting the same to be readily flexed. The automatic locking devices are entirely concealed within the tubular member 10 and the spring 19 being seated upon the fastening 14, has a firm metallic bearing which is fitted as a part of the hinge construction and therefore furnishes a bearing for said hinge without special work. The crown 21 of the forepart may be fined down and even concaved as required by recent extreme styles without interfering with or weakening the hinge or locking members in any way whatever, and the entire exterior contour of the wooden portions of both forepart and heel part may be varied to the greatest extent desired without interfering with the hinge construction which is seated in the

adapted to be flexed which pivot is concentric with the knuckle member 3 and the cooperating recess 4, into the central part of the wood of the forepart, and a corresponding socket 8 into the heel part 2 and similarly located therein. Where this bore cuts the knuckle 3 I cut away a portion thereof as indicated at 9, but of a width corresponding to the width of the tubular dowel member 10, to permit said tubular member 10 which is fitted into the socket 7 to swing during the flexing of the last while at the same time hugging against the sides of the cut as shown best in Fig. 2. The tubular member 10 is formed with a slot 11 in which the coöperating dowel member 12 of the hinge is fitted. The hinge member 12 extends into the socket 8 in the heel part and receives a pin or rivet 13 therethrough, which passes through the solid thick wood of the heel part, and the tubular member 10 receives a corresponding fastening member 14 passing therethrough and fitting within and through the solid thick wood portion of the forepart. The overlapping portions of the hinge members 10 and 12 are suitably bored to receive the pivot pin 15 on which the two parts are flexed, which pivot pin is set through the wood or knuckle 3 concentric with the outer face of said knuckle and with the corresponding face 4 of the forepart, so as to insure smooth, yet snug, tight, turning of the knuckle 3 in the socket cavity 4, as clearly shown in Figs. 1 and 3.

The forward portion of the hinge member 12 is provided with an extension beyond the pivot pin 15, which presents a concave face 16 and a second face 17, each meeting at a point 18, said faces being preferably hardened, or the entire member 12 may be of hardened steel. Within the tubular member 10 is fitted an expansible coiled spring 19, which bears on the fastening 14 and is adapted to exert considerable tension through a hardened steel member 20 upon the projecting portion constituting the faces 17 and 18 of the coöperating hinge member 12. Preferably the member 20 is a ball also of hardened steel, and its size fits that of the concave face 16 to afford a strong locking bearing when the last is in extended position, as shown in Fig. 1. The spring 19 forcing the member 20 into firm engagement with the forward portion of the hinge member 12 will require considerable power to permit the member 12 to be flexed and either face 17 or 16, the spring 19 will automatically complete the flexing or straightening of the last and will similarly seat the last in either straightened position, as shown in Fig. 1, or in flexed position as shown in Fig. 3.

It will be noted that the wood of both forepart and heel part is cut away to a minimum extent, and futhermore that the hinge members practically fill up the wood so cut away particularly the tubular member 10, and that portion of the hinge member 12 within its socket which is free of the member 10 may also be tubular if desired. I prefer to employ a headed bolt for the fastening member 13, and may also form the pins 13 and 14 as taper or wedge members, thus further forcing the forepart and heel part 2 into close contact around the knuckle 3 in assembling the last. The fastenings 13 and 14 being through the solid uncut wood part of the last at the thickest portions thereof and remote from the abutting faces 3 and 4 effectually prevent the loosening of the hinge at said abutting faces and thus always retain the two parts of the last in firm, close, and unremitting contact, while permitting the same to be readily flexed. The automatic locking devices are entirely concealed within the tubular member 10 and the spring 19 being seated upon the fastening 14, has a firm metallic bearing which is fitted as a part of the hinge construction and therefore furnishes a bearing for said hinge without special work. The crown 21 of the forepart may be fined down and even concaved as required by recent extreme styles without interfering with or weakening the hinge or locking members in any way whatever, and the entire exterior contour of the wooden portions of both forepart and heel part may be varied to the greatest extent desired without interfering with the hinge construction which is seated in the central portions of the two wooden parts. Coupled with this, and with the strong knuckle-joint combination already explained, the automatic locking feature of the two dowel members also has its bearing and wearing portions upon metal, preferably hardened steel, and there is therefore nothing to wear loose in my improved construction, and both lock and hinge are always maintained in their initial efficiency. The manufacture of the last is simple and the entire arrangement permits an easy and

expeditious assembling of the last and hinged parts. But by far the most important function of my invention is the strength and stability which it gives to the hinged last. My invention makes the knuckle-joint last almost as strong as the block last and makes it possible to continue the use of the hinged last, with all its well-recognized advantages, notwithstanding the multiplying exactions of the modern styles, leveling pressures and other requirements of modern rapid shoe manufacturing, as already explained.

I make no claim to the knuckle joint alone nor to the dowel hinge alone nor to the plunger locking device alone, as each of these has existed before, but not in the combination nor with the advantages and results which distinguish my invention. Dowel hinges have always heretofore been used in the general type of last known as the Tyler hinged last (whose general lines of cut are typified in Patents 601,622; 607,978; and 661,397, in which the pintle or pivot point is located at the apex of the V-gap or meeting point where the secant line from the bottom intersects the two secant lines from the top of the last), and have been subject to the fatal weakness inherent in all lasts of this Tyler type, viz. that the leveling pressures and twisting movements of the forepart with relation to the heel-part have brought a shearing strain directly on the hinge at the pintle, so that they could not stand up to the severe usage of the more modern factory-practice. One recognized advantage of the dowel hinge has been that it leaves the wood largely uncut or integral and avoids the necessity of making a plane of cleavage or tendency to split the last apart as when the last is sawed to receive a plate hinge (whether set horizontally as in the Tyler last or vertically as in Patent 608,006 already mentioned), but in the only instance known to me which reached a commercial point (661,397 above) it was necessary to employ two widely spaced apart dowels in order to maintain the joint of the last-parts at the bottom level or alined and to resist twisting tendency. The only instance known to me in the prior art where it has been proposed to employ a single dowel-hinge is shown in Patent 642,841, in which it was attempted to overcome the tendency to twist by making the dowel S-shaped in cross-section, set with its greatest diameter semi-cylindrical projection or knuckle of wood secures a strong supporting resistance by its engagement with its bed or socket throughout the entire width of the last whereby both the shearing strain is effectually resisted and also the tendency of the last-parts to twist on each other, but, as I have explained in the earlier part of this specification, the still greater exactions of the still more advanced shoe factory-practice finally proved too much for this last as then made (Pat. 936,138, being the most advanced example on the market), as the last-joint or connection would give or yield sufficiently to permit the knuckle to loosen in its socket and hence allow the forepart to separate slightly from the heel-part, causing an unevenness on the bottom and sides and a liability of the bottom to gap open slightly and thereby become liable to pinch the lining and crease or cut the leather. My present invention, therefore, combines the great strength of the knuckle joint and its elimination of the shearing-strain and twisting-strain weaknesses with the great strength and anti-splitting advantages and simplicity of the dowel hinge, with the marked result that the hinged last is again rendered capable of meeting the latest factory requirements. Viewed from another standpoint, the main feature of my invention may be stated to reside in preserving all the advantages of the Kantbreak last while removing its weakness by taking practically all the strains which previously existed between the pintle and the knuckle (which previously had to endure all the lengthwise-pull strain of the leveler) away from this point and transferring said strains to the thickest heaviest portions of the forepart and heel-part by employing a jointed dowel hinge and anchoring its opposite ends as far away from the knuckle as the last construction will permit. Thus I have succeeded in bringing together in a single compact construction the great strength resulting from leaving the wood uncut transversely by using a dowel hinge (reaching its maximum of strength in the single dowel), the great self-alining and vertical-strain-sustaining features of the knuckle-joint construction, and the transference to the thickest heaviest wood-mass of the fore-part and the heel-part of the points of resistance to lengthwise pull and strain under the level-

notwithstanding the multiplying exactions of the modern styles, leveling pressures and other requirements of modern rapid shoe manufacturing, as already explained.

I make no claim to the knuckle joint alone nor to the dowel hinge alone nor to the plunger locking device alone, as each of these has existed before, but not in the combination nor with the advantages and results which distinguish my invention. Dowel hinges have always heretofore been used in the general type of last known as the Tyler hinged last (whose general lines of cut are typified in Patents 601,622; 607,978; and 661,397, in which the pintle or pivot point is located at the apex of the V-gap or meeting point where the secant line from the bottom intersects the two secant lines from the top of the last), and have been subject to the fatal weakness inherent in all lasts of this Tyler type, viz. that the leveling pressures and twisting movements of the forepart with relation to the heel-part have brought a shearing strain directly on the hinge at the pintle, so that they could not stand up to the severe usage of the more modern factory-practice. One recognized advantage of the dowel hinge has been that it leaves the wood largely uncut or integral and avoids the necessity of making a plane of cleavage or tendency to split the last apart as when the last is sawed to receive a plate hinge (whether set horizontally as in the Tyler last or vertically as in Patent 608,006 already mentioned), but in the only instance known to me which reached a commercial point (661,397 above) it was necessary to employ two widely spaced apart dowels in order to maintain the joint of the last-parts at the bottom level or alined and to resist twisting tendency. The only instance known to me in the prior art where it has been proposed to employ a single dowel-hinge is shown in Patent 642,341, in which it was attempted to overcome the tendency to twist by making the dowel S-shaped in cross-section, set with its greatest diameter extending vertically in the last, but it was found in practice that there was still a fatal tendency of the last-parts to twist on each other and also that there was a tendency to split. The increasing exactions as to strength to resist the shearing strains above mentioned and the twisting strains, also above mentioned, were met satisfactorily for several years by the knuckle-joint last already explained hereinbefore, in which the specification, the still greater exactions of the still more advanced shoe factory practice finally proved too much for this last as then made (Pat. 936,138, being the most advanced example on the market), as the last-joint or connection would give or yield sufficiently to permit the knuckle to loosen in its socket and hence allow the forepart to separate slightly from the heel-part, causing an unevenness on the bottom and sides and a liability of the bottom to gap open slightly and thereby become liable to pinch the lining and crease or cut the leather. My present invention, therefore, combines the great strength of the knuckle joint and its elimination of the shearing-strain and twisting-strain weaknesses with the great strength and anti-splitting advantages and simplicity of the dowel hinge, with the marked result that the hinged last is again rendered capable of meeting the latest factory requirements. Viewed from another standpoint, the main feature of my invention may be stated to reside in preserving all the advantages of the Kantbreak last while removing its weakness by taking practically all the strains which previously existed between the pintle and the knuckle (which previously had to endure all the lengthwise-pull strain of the leveler) away from this point and transferring said strains to the thickest heaviest portions of the forepart and heel-part by employing a jointed dowel hinge and anchoring its opposite ends as far away from the knuckle as the last construction will permit. Thus I have succeeded in bringing together in a single compact construction the great strength resulting from leaving the wood uncut transversely by using a dowel hinge (reaching its maximum of strength in the single dowel), the great self-alining and vertical-strain-sustaining features of the knuckle-joint construction, and the transference to the thickest heaviest wood-mass of the fore-part and the heel-part of the points of resistance to lengthwise pull and strain under the leveling-machine. At the same time I have eliminated the tendency to shear off and twist which has always heretofore existed in connection with the attempt to use a dowel hinge, the tendency of the pintle to break out endwise the cross-grain wood of the knuckle in the Kantbreak last, and the tendency to split along the planes of the saw kerfs which is present in the remaining forms of hinged lasts which necessitate the

presence of saw kerfs. And finally I have so combined all these features of construction and advantage that, without cutting the wood or changing the dowel or otherwise complicating the structures, the last is made self-locking in both its lengthened and shortened positions by the self-contained and self-adjusting spring lock. This form of lock is not new in and of itself (being shown in Patent 721,717), but only as applied to my particular construction of hinge and relation of last-parts.

My invention will be more particularly defined in the following claims, taken in connection with the foregoing description and differentiation from the state of the prior art.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A hinged last having its forepart and heel-part fitted to each other with a knuckle joint, combined with a dowel-like hinge connection consisting of at least two dowel members pivoted to swing intermediate its length in the knuckle and anchored remote from said pintle at its opposite ends within the solid portions of the forepart and heel-part respectively.

2. A last, having a forepart, a heel-part, a portion of the wood of one part extending about the pintle on which said parts swing, and a hinge having a pintle on which said parts swing and having opposite dowel portions extending lengthwise of the last within said forepart and heel-part respectively and anchored adjacent their opposite ends in the body of the respective last-parts.

3. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts at the points of approximately greatest wood-mass and strength of said last-parts.

5. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle extending approximately the width of the last concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts.

6. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one part and the other part containing a complemental concave socket in which said knuckle fits and turns, said last-parts containing holes extending lengthwise of the last in opposite directions from said knuckle and socket at approximately the widthwise middle of the last, and a hinge connection consisting of a dowel-like member occupying the hole in the forepart, a second dowel-like member occupying the hole in the heel-part, said two members mutually overlapping at their meeting ends in the knuckle, a pintle mounted within the knuckle concentrically thereof and passing through said overlapping ends as a center of pivotal movement thereof, a transverse pin extending transversely of the forepart through the forward end of the first mentioned member at the point of approximately greatest thickness and strength of wood-mass of said forepart, and a second transverse pin extending transversely through the heel-part and through the rear end of the second

of lock is not new in and of itself (being shown in Patent 721,717), but only as applied to my particular construction of hinge and relation of last-parts.

My invention will be more particularly defined in the following claims, taken in connection with the foregoing description and differentiation from the state of the prior art.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A hinged last having its forepart and heel-part fitted to each other with a knuckle joint, combined with a dowel-like hinge connection consisting of at least two dowel members pivoted to swing intermediate its length in the knuckle and anchored remote from said pintle at its opposite ends within the solid portions of the forepart and heel-part respectively.

2. A last, having a forepart, a heel-part, a portion of the wood of one part extending about the pintle on which said parts swing, and a hinge having a pintle on which said parts swing and having opposite dowel portions extending lengthwise of the last within said forepart and heel-part respectively and anchored adjacent their opposite ends in the body of the respective last-parts.

3. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts.

4. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle extending approximately the width of the last concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts at the points of approximately greatest wood-mass and strength of said last-parts.

5. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle extending approximately the width of the last concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts.

6. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one part and the other part containing a complemental concave socket in which said knuckle fits and turns, said last-parts containing holes extending lengthwise of the last in opposite directions from said knuckle and socket at approximately the widthwise middle of the last, and a hinge connection consisting of a dowel-like member occupying the hole in the forepart, a second dowel-like member occupying the hole in the heel-part, said two members mutually overlapping at their meeting ends in the knuckle, a pintle mounted within the knuckle concentrically thereof and passing through said overlapping ends as a center of pivotal movement thereof, a transverse pin extending transversely of the forepart through the forward end of the first mentioned member at the point of approximately greatest thickness and strength of wood-mass of said forepart, and a second transverse pin extending transversely through the heel-part and through the rear end of the second mentioned member at the point of approximately greatest thickness and strength of wood-mass of said heel-part, one of said dowel-like members being tubular to fit its hole, the knuckle having a transverse recess corresponding in width to the diameter of said tube, for preventing widthwise shifting of one last-part on the other last-part.

7. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last

on one part and the other part containing a complemental concave socket in which said knuckle fits and turns, said last-parts containing holes extending lengthwise of the last in opposite directions from said knuckle and socket at approximately the widthwise middle of the last, and a hinge connection and lock consisting of a dowel-like member occupying the hole in the forepart, a second dowel-like member occupying the hole in the heel-part, said two members mutually overlapping at their meeting ends in the knuckle, a pintle mounted within the knuckle concentrically thereof and passing through said overlapping ends as a center of pivotal movement thereof, a transverse pin extending transversely of the forepart through the forward end of the first mentioned member at the point of approximately greatest thickness and strength of wood-mass of said forepart, a second transverse pin extending transversely through the heel-part and through the rear end of the second mentioned member at the point of approximately greatest thickness and strength of wood-mass of said heel-part, one of said dowel-like members being tubular to fit its hole, the knuckle having a transverse recess corresponding in width to the diameter of said tube, for preventing widthwise shifting of one last-part on the other last-part, a coiled spring held under compression within said tubular dowel against the said transverse pin thereof, and a ball supported loosely by the opposite end of said spring within said tubular member, the adjacent end of the other dowel member having opposite oblique locking seats for said ball to occupy when the last is in fully lengthened position and fully shortened position respectively.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WALTER A. KRENTLER.

Witnesses:

NELLIE E. CHAVENELLE,

B. H. KOCHER.

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O. A. PETERSON.

HINGED LAST.

APPLICATION FILED MAR. 3, 1915.

1,195,266.

Patented Aug. 22, 1916.

Fig. 1.

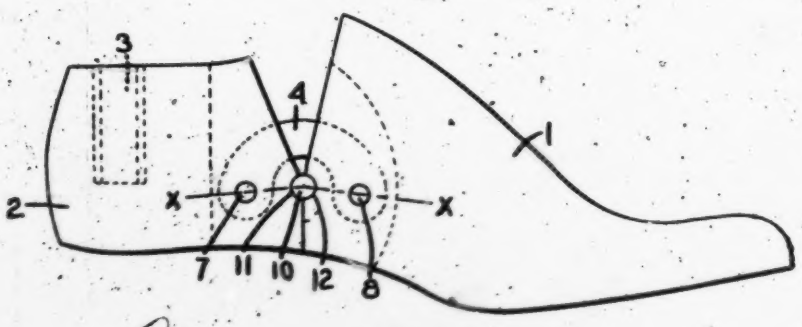



Fig 2.

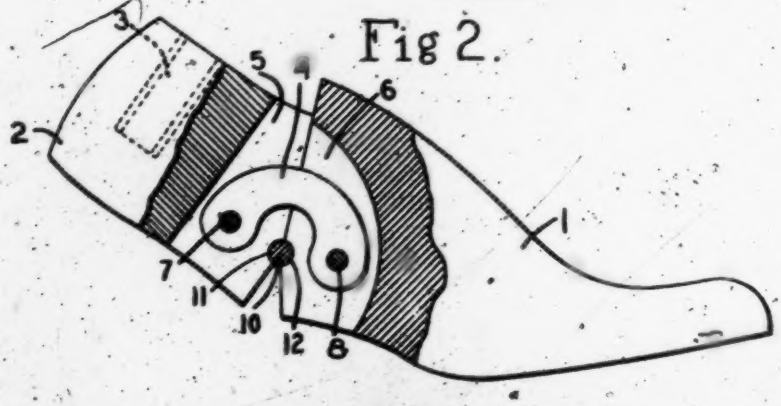



Fig. 3.

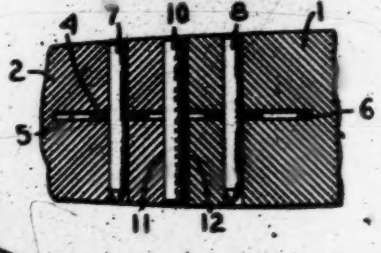



Fig. 4.

Fig. 5.

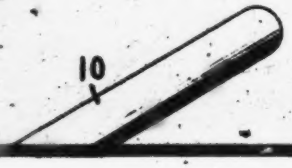


Fig. 1.

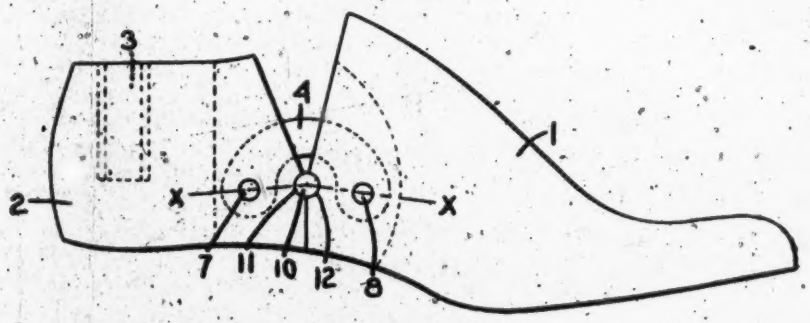



Fig 2.

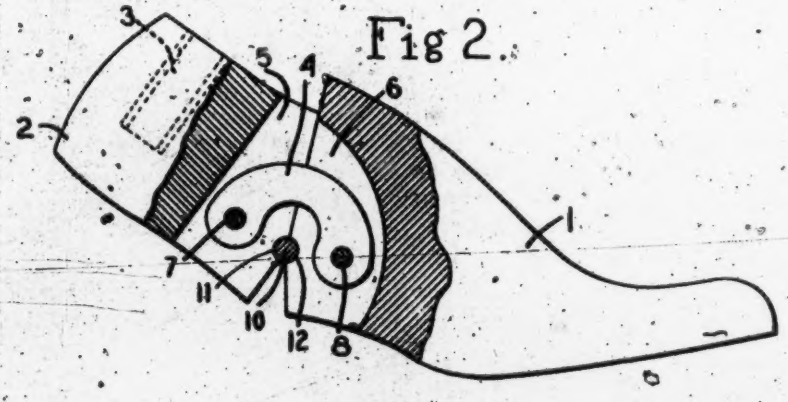



Fig. 3.

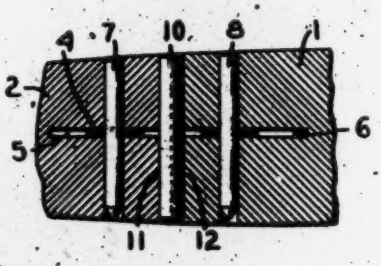



Fig. 4.

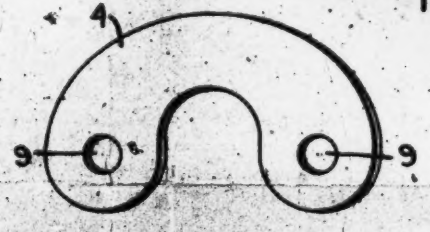
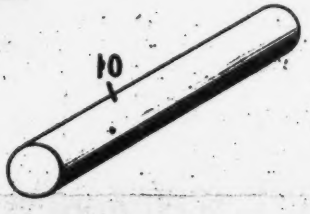



Fig. 5.




Witnesses.
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William C. Hagen

Inventor.
Otto A. Peterson
by Heard Smith & Tennant
Att'ys

# UNITED STATES PATENT OFFICE.

OTTO A. PETERSON OF STOUGHTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO GEORGE E. BELCHER, OF STOUGHTON, MASSACHUSETTS.

## HINGED LAST.

1,195,266. Specification of Letters Patent. Patented Aug. 22, 1916.

Application filed March 3, 1915. Serial No. 11,865.

*To all whom it may concern:*

Be it known that I, OTTO A. PETERSON a citizen of the United States, residing at Stoughton, county of Norfolk, State of Massachusetts, have invented an Improvement in Hinged Lasts, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to hinge lasts and has for its object to provide a hinge last having a novel hinge device which is very simple in construction and inexpensive to manufacture, which can be easily applied to the two parts of the last and which will operate automatically to lock the last either in extended or collapsed position while permitting the heel portion of the last to be freely swung from one to the other position and which has other features and advantages, all as will be more fully hereinafter described.

In order to give an understanding of my invention I have illustrated in the drawings a selected embodiment thereof which will now be described, after which the novel features will be pointed out in the appended claims.

In the drawings, Figure 1 is a side view of a last embodying my invention; Fig. 2 is a vertical central section of the last showing it collapsed; Fig. 3 is a section on the line *x*—*x*, Fig. 1; Fig. 4 is a view of the connecting member; Fig. 5 is a view of the pivot pin.

In the drawings 1 designates the fore part of the last and 2 the heel part thereof, the latter being shown as having the last-pin-receiving socket 3, as usual, in hinge lasts.

My improvements consist in a hinge connection uniting the fore part and heel part of the last which involves a resilient connecting member. In the embodiment of my invention this connecting member is shown at 4 and it is in the form of a curved plate of metal or other suitable material which is resilient in a longitudinal direction. The meeting ends of the heel and fore part of the last are provided with slots 5 and 6 in which the ends of the connecting member are received, and said connecting member is secured at its ends to the heel and fore part of the last in any suitable way as by means of pins 7 and 8 that extend transversely through the parts of the last and through openings 9 formed in the ends of the connecting member. The two members of the last are provided with means to hold them in proper position relative to each other during the turning movement of the heel portion on the last so that the swinging movement of the heel portion will be about its proper axis. Any suitable means for this purpose may be employed. That herein shown constitutes a pivotal pin 10 which rests in two half recesses 11, 12 formed in the heel and toe portions of the last, respectively.

The pins 7 and 8 are so situated relative to the pivotal pin 10 that when the last is extended, as shown in Fig. 1, a line joining the pins 7 and 8 will be below the center of the pin 10, while when the last is collapsed, as shown in Fig. 2, said line joining the pins 7 and 8 will be above the center of the pin 10.

As the heel portion 2 swings from its extended to its collapsed position the pin 7 will move in the arc of a circle having for its center the center of the pin 10. Consequently during the initial swinging movement of the heel part 2 from either of its positions to the other position and until the line joining the pins 7 and 8 is in line with the center of the pin 10, said pin 7 will have a slight movement away from the pin 8

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Application filed March 3, 1915. Serial No. 11,865.

*To all whom it may concern:*

Be it known that I, OTTO A. PETERSON a citizen of the United States, residing at Stoughton, county of Norfolk, State of Massachusetts, have invented an Improvement in Hinged Lasts, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to hinge lasts and has for its object to provide a hinge last having a novel hinge device which is very simple in construction and inexpensive to manufacture, which can be easily applied to the two parts of the last and which will operate automatically to lock the last either in extended or collapsed position while permitting the heel portion of the last to be freely swung from one to the other position and which has other features and advantages, all as will be more fully hereinafter described.

In order to give an understanding of my invention I have illustrated in the drawings a selected embodiment thereof which will now be described, after which the novel features will be pointed out in the appended claims.

In the drawings, Figure 1 is a side view of a last embodying my invention; Fig. 2 is a vertical central section of the last showing it collapsed; Fig. 3 is a section on the line $x$—$x$, Fig. 1; Fig. 4 is a view of the connecting member; Fig. 5 is a view of the pivot pin.

In the drawings 1 designates the fore part of the last and 2 the heel part thereof, the latter being shown as having the last-pin-receiving socket 3, as usual, in hinge lasts.

My improvements consist in a hinge connection uniting the fore part and heel part of the last which involves a resilient connecting member that holds and locks the heel part in either its extended or collapsed position, that is, either in the position shown in Fig. 1 or that shown in Fig. 2. The connecting member is so constructed that it will be extended during the initial swinging movement of the heel portion of the last in either direction and contracted during the final swinging movement, the resiliency of the connecting member thus acting to hold the last in either its extended or collapsed condition. In the illustrated embodiment of my invention this connecting member is shown at 4 and it is in the form of a curved plate of metal or other suitable material which is resilient in a longitudinal direction. The meeting ends of the heel and fore part of the last are provided with slots 5 and 6 in which the ends of the connecting member are received, and said connecting member is secured at its ends to the heel and fore part of the last in any suitable way as by means of pins 7 and 8 that extend transversely through the parts of the last and through openings 9 formed in the ends of the connecting member. The two members of the last are provided with means to hold them in proper position relative to each other during the turning movement of the heel portion on the last so that the swinging movement of the heel portion will be about its proper axis. Any suitable means for this purpose may be employed. That herein shown constitutes a pivotal pin 10 which rests in two half recesses 11, 12 formed in the heel and toe portions of the last, respectively.

The pins 7 and 8 are so situated relative to the pivotal pin 10 that when the last is extended, as shown in Fig. 1, a line joining the pins 7 and 8 will be below the center of the pin 10, while when the last is collapsed, as shown in Fig. 2, said line joining the pins 7 and 8 will be above the center of the pin 10.

As the heel portion 2 swings from its extended to its collapsed position the pin 7 will move in the arc of a circle having for its center the center of the pin 10. Consequently during the initial swinging movement of the heel part 2 from either of its positions to the other position and until the line joining the pins 7 and 8 is in line with the center of the pin 10, said pin 7 will have a slight movement away from the pin 8. During the completion of the movement of the heel part 2 in either direction the movement of the pin 7 will be slightly toward the pin 8. As a result when the heel part 2 is moved from its extended to its collapsed position or vice versa, the initial movement thereof results in an extension or elongation of the connecting member 4 and the final movement results in a contraction of said member 4. The member 4, therefore, serves as a lock to hold the last either in its extended or its collapsed position, but by ap-

plying sufficient force to the last the heel part can be swung from one position to the other.

A last embodying the above construction is extremely simple as the connection between the parts involves merely the connecting member 4 with suitable means for securing it to the two parts of the last and some suitable means, such as the pin 10, to constitute the fulcrum about which the heel part turns. The resiliency of the member 4 is such as to securely hold the two parts of the last in their relative positions and the construction shown is one providing ample resistance to any torsional or twisting strain between the two parts of the last or any lateral strain to which the last may be subjected.

The connecting member 4 will preferably be so constructed that it will be under some strain when the last is either straightened or collapsed, and hence in either of these two positions the member 4 operates to hold the two parts of the last firmly against each other and to prevent any lost play the two parts of the last are, therefore, yieldingly held in contact with each other in either of the two positions shown in Figs. 1 and 2, and the resiliency of the member 4 is sufficient to take up any looseness which may occur due to the wearing of the pin 4 or the meeting faces of the two members.

While I have illustrated herein a selected embodiment of my invention I do not wish to be limited to the constructional features shown.

I claim:

1. In a hinge last, the combination with a fore part, of a heel part capable of having a swinging movement relative to the fore part and a resilient connecting member connected to both parts of the last and shaped to hold them yieldingly in either their extended or collapsed position.

2. In a hinge last, the combination with a fore part and a heel part, of connecting means comprising means constituting a fulcrum about which the heel part turns and a longitudinally resilient connecting member connected to both the heel part and the fore part of the last at points which are in a line at one side of the axis of movement of the heel part when the last is extended and at the other side of said axis when the last is a fulcrum about which the heel part turns, and a longitudinally resilient connecting member secured to both the heel part and the fore part and shaped to hold the last yieldingly either extended or collapsed.

4. In a hinge last, the combination with a fore part and a heel part, one of which has a groove extending transversely thereof, of means associated with the other part and occupying said groove and constituting a fulcrum about which the heel part turns, and a resilient connecting member connected to both the heel and the fore part at points which are in a line at one side of the fulcrum when the last is extended and at the other side of said fulcrum when the last is collapsed.

5. In a hinge last, the combination with a heel part and a fore part, each having a transverse groove and a slot, of a fulcrum pin occupying said grooves, and a U-shaped resilient connecting member received in said slots and connected at its ends to the heel part and fore part, respectively, at points which are in a line at one side of the center of the fulcrum pin when the last is extended and at the other side when the last is collapsed.

6. In a hinge last, the combination with a fore part, of a heel part capable of having a swinging movement relative to the fore part, and a longitudinally-resilient member connected to both the parts at points which are in a line at one side of the axis of the swinging movement of the heel part when the last is extended and on the other side of said axis when the last is collapsed whereby said member will hold the parts yieldingly in either extended or collapsed position.

7. A last comprising a heel part and a fore part having a common fulcrum point and being arranged and constructed to turn about said point into extended and collapsed position, and a longitudinally resilient member operatively connected to said parts at points which are in a line on one side of the fulcrum when the last is extended and on the other side of the fulcrum when the last is collapsed, said member being arranged to hold the last parts resiliently in either their extended or collapsed position.

In testimony whereof, I have signed my

A last embodying the above construction is extremely simple as the connection between the parts involves merely the connecting member 4 with suitable means for securing it to the two parts of the last and some suitable means, such as the pin 10, to constitute the fulcrum about which the heel part turns. The resiliency of the member 4 is such as to securely hold the two parts of the last in their relative positions and the construction shown is one providing ample resistance to any torsional or twisting strain between the two parts of the last or any lateral strain to which the last may be subjected.

The connecting member 4 will preferably be so constructed that it will be under some strain when the last is either straightened or collapsed, and hence in either of these two positions the member 4 operates to hold the two parts of the last firmly against each other and to prevent any lost play the two parts of the last are, therefore, yieldingly held in contact with each other in either of the two positions shown in Figs. 1 and 2, and the resiliency of the member 4 is sufficient to take up any looseness which may occur due to the wearing of the pin 4 or the meeting faces of the two members.

While I have illustrated herein a selected embodiment of my invention I do not wish to be limited to the constructional features shown.

I claim:

1. In a hinge last, the combination with a fore part, of a heel part capable of having a swinging movement relative to the fore part and a resilient connecting member connected to both parts of the last and shaped to hold them yieldingly in either their extended or collapsed position.

2. In a hinge last, the combination with a fore part and a heel part, of connecting means comprising means constituting a fulcrum about which the heel part turns and a longitudinally resilient connecting member connected to both the heel part and the fore part of the last at points which are in a line at one side of the axis of movement of the heel part when the last is extended and at the other side of said axis when the last is collapsed.

3. In a hinge last, the combination with a fore part and a heel part, one of which has a groove extending transversely thereof, of means associated with the other part and occupying said groove and constituting the fore part and shaped to hold the last yieldingly either extended or collapsed.

4. In a hinge last, the combination with a fore part and a heel part, one of which has a groove extending transversely thereof, of means associated with the other part and occupying said groove and constituting a fulcrum about which the heel part turns, and a resilient connecting member connected to both the heel and the fore part at points which are in a line at one side of the fulcrum when the last is extended and at the other side of said fulcrum when the last is collapsed.

5. In a hinge last, the combination with a heel part and a fore part, each having a transverse groove and a slot, of a fulcrum pin occupying said grooves, and a U-shaped resilient connecting member received in said slots and connected at its ends to the heel part and fore part, respectively, at points which are in a line at one side of the center of the fulcrum pin when the last is extended and at the other side when the last is collapsed.

6. In a hinge last, the combination with a fore part, of a heel part capable of having a swinging movement relative to the fore part, and a longitudinally-resilient member connected to both the parts at points which are in a line at one side of the axis of the swinging movement of the heel part when the last is extended and on the other side of said axis when the last is collapsed whereby said member will hold the parts yieldingly in either extended or collapsed position.

7. A last comprising a heel part and a fore part having a common fulcrum point and being arranged and constructed to turn about said point into extended and collapsed position; and a longitudinally resilient member operatively connected to said parts at points which are in a line on one side of the fulcrum when the last is extended and on the other side of the fulcrum when the last is collapsed, said member being arranged to hold the last parts resiliently in either their extended or collapsed position.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

OTTO A. PETERSON.

Witnesses:

MAUDE B. GUPTILL,

THOMAS J. DRUMMOND.

176

June 19, 1923 1,459,061

W. A. KRENTLER

COMBINED LINK AND HINGE LAST

Filed June 21, 1922

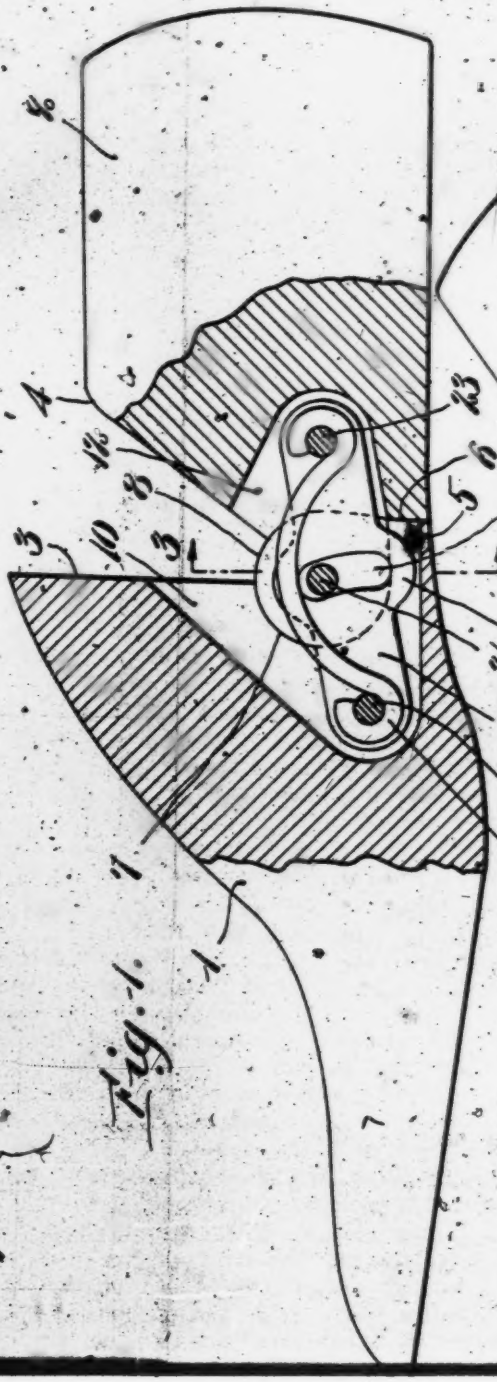

Fig. 1.

Fig. 2.



Fig. 3.

Inventor
Walter A. Krentler
by James R. Hodder
atty

Patented June 19, 1923. 1,459,061

# UNITED STATES PATENT OFFICE.

WALTER A. KRENTLER, OF DETROIT, MICHIGAN, ASSIGNOR TO KRENTLER-ARNOLD HINGE LAST COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

## COMBINED LINK AND HINGE LAST.

Application filed June 21, 1922. Serial No. 569,983.

*To all whom it may concern:*

Be it known that I, WALTER A. KRENTLER, a citizen of the United States, and resident of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Combined Link and Hinge Lasts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In my present invention I have produced a two-part last having for its object to provide a combined hinge or pivotal last construction, together with a connecting link construction as well as to simplify such two-part lasts and improve and perfect their manufacture.

The present invention is largely an adaptation and modification of the last constructions shown and illustrated in the prior application, Ser. No. 565,302, filed June 2, 1922, illustrating a two-part last with a link connection.

Broadly considered, my present invention consists in the provision of a novel, simple, efficient, strong and serviceable construction wherein both the pivot or hinge type of last and the link type of last are combined, uniting in the present invention certain of the advantages of both said prior types of last construction. I believe that the combination of a pivot or hinge arrangement, whereby the two parts of the last are compelled to move relatively with each other, on a fixed pivot or hinge, in combination with a solid plate or link uniting both parts of the last, and aiding in holding the same in assembled position—as well as in locked position—either shortened or extended, is distinctly new, and I wish to claim the same herein broadly. Preferably I so construct and arrange the last parts of the hinge and link members, that the same will operate to set and produce a springing or snap-

versa, as well as to give tension to the holding of the last in said lengthened and shortened position, as well also as to produce a constant tightening tension on the last parts and thus compensate for looseness or wear.

Further features, advantages and combinations of parts will be hereinafter more fully pointed out and claimed.

Referring to the drawings, illustrating a preferred embodiment of the invention,

Fig. 1 is a side view of a last, partly in cross-section, showing the last parts in extended position;

Fig. 2 is a fragmentary and partly cross-sectional view showing the last parts in shortened position; and

Fig. 3 is a view on the line 3—3 of Fig. 1.

The last as shown in the drawings, comprises a forepart 1 and heel part 2 divided on a line of cut which will produce the faces 3 and 4 on the fore and heel parts respectively, at the upper side, the contacting faces 5 and 6 on the lower or bottom surface of the last, and the "knuckle joint," consisting in the concave face 7 on the forepart 1 and the convex or knuckle 8 on the heel part. In the forepart 1 and opening from the line of dividing cut is formed a recess 10 and in the heel part is a corresponding recess 12 of sufficient width and appropriate depth to receive the connecting link 15 and the hinges 16 and 17. In the forepart 1 also is an additional groove 11, see Fig. 3, to receive the depending portion 20 of the link 15 when the last is in lengthened position as illustrated in Fig. 1. The knuckle joint faces 7 and 8 are in the form of an arc, and the knuckle joint portion 8 on the heel part is of sufficiently greater width than the recesses 10 and 12 to span the same and to permit corresponding extensions 18 on the forepart, thus overlap-

Application filed June 21, 1922. Serial No. 569,283.

*To all whom it may concern:*

Be it known that I, WALTER A. KRENTLER, a citizen of the United States, and resident of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Combined Link and Hinge Lasts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In my present invention I have produced a two-part last having for its object to provide a combined hinge or pivotal last construction, together with a connecting link construction as well as to simplify such two-part lasts and improve and perfect their manufacture.

The present invention is largely an adaptation and modification of the last constructions shown and illustrated in the prior application, Ser. No. 565,302, filed June 2, 1922, illustrating a two-part last with a link connection.

Broadly considered, my present invention consists in the provision of a novel, simple, efficient, strong and serviceable construction wherein both the pivot or hinge type of last and the link type of last are combined, uniting in the present invention certain of the advantages of both said prior types of last construction. I believe that the combination of a pivot or hinge arrangement, whereby the two parts of the last are compelled to move relatively with each other, on a fixed pivot or hinge, in combination with a solid plate or link uniting both parts of the last, and aiding in holding the same in assembled position—as well as in locked position—either shortened or extended, is distinctly new, and I wish to claim the same herein broadly. Preferably I so construct and arrange the last parts of the hinge and link members, that the same will operate to permit and produce a springing or snapping of the last parts from lengthened position to shortened position, and vice versa, and preferably also I utilize this combination of pivot and link connections in conjunction with the "knuckle joint" type of last. In addition to these features I may and preferably will utilize a spring or springs, cooperating with the combined pivot and link members to accelerate the springing or snapping of the last parts from shortened to lengthened position, and vice versa, as well as to give tension to the holding of the last in said lengthened and shortened position, as well also as to produce a constant tightening tension on the last parts and thus compensate for looseness or wear.

Further features, advantages and combinations of parts will be hereinafter more fully pointed out and claimed.

Referring to the drawings, illustrating a preferred embodiment of the invention,

Fig. 1 is a side view of a last, partly in cross-section, showing the last parts in extended position;

Fig. 2 is a fragmentary and partly cross-sectional view showing the last parts in shortened position; and

Fig. 3 is a view on the line 3—3 of Fig. 1.

The last as shown in the drawings, comprises a forepart 1 and heel part 2 divided on a line of cut which will produce the faces 3 and 4 on the fore and heel parts respectively, at the upper side, the contacting faces 5 and 6 on the lower or bottom surface of the last, and the "knuckle joint," consisting in the concave face 7 on the forepart 1 and the convex or knuckle 8 on the heel part. In the forepart 1 and opening from the line of dividing cut is formed a recess 10 and in the heel part is a corresponding recess 12 of sufficient width and appropriate depth to receive the connecting link 15 and the hinges 16 and 17. In the forepart 1 also is an additional groove 11, see Fig. 3, to receive the depending portion 20 of the link 15 when the last is in lengthened position as illustrated in Fig. 1. The knuckle joint faces 7 and 8 are in the form of an arc, and the knuckle joint portion 8 on the heel part is of sufficiently greater width than the recesses 10 and 12 to span the same and to permit corresponding extensions 18 on the forepart, thus overlapping each other and being bored to receive the pivot or hinge 21 which extends through both sections 8 and 18 (see Fig. 3), thus giving the pivot or hinge therefor and uniting the last parts. This insures the movement of the forepart and heel part on the pivot pin 21, but if this were the only connection, the holding of the two last parts together would depend on the strength of the wood in the knuckle joint or overlapping portions 8 and 18. In order to pro-

vide a firm, strong, rigid and powerful connection, I utilize the link 15 and have the same secured at points remote from the line of cut on the rivets 22 and 23 respectively. Furthermore, by having the securing points 22 and 23 disalined with the central pivot 21 and fastening of these parts rigidly and firmly together, I secure the advantages incident to "springing" or "snapping" the heel parts from lengthened to shortened position or the reverse, as above noted. Bearing at each side of the plate 15 and with the ends engaging the rivets 22 and 23, I further provide the springs 16 and 17, which still further increases the resistance and tension incident to holding the last parts in either shortened or lengthened position, as well as to facilitate the snapping or springing of these parts from one position to another. With the centers 22, 23 and 21 disalined, and with the link construction as above explained, in combination with the constant tension of the springs 16 and 17, I have provided a smooth and efficient last locking construction to hold the last parts firmly in their desired connection.

In order to effect this combination of the pivot or hinge construction utilizing a central pivot pin 21, together with the link connection 15, I have provided this link member with a central slot 25, the same being of appropriate width to span the pivot pin 21, and being formed in the arc of relative movement between the forepart and heel part. This arc being of substantial width I prefer to form the plate 15 with a depending portion or projection 20, as heretofore noted, and for this purpose form the groove 11 in the lower part of the wood of the last, which, however, does not materially weaken the last nor does it weaken the bearing faces 5 and 6 in their function.

It will be appreciated that I have thus combined a pivot hinge and a link construction, accomplishing this result with but slight cutting away of the wood of the last, keeping the last parts substantially closed and protected, giving a strong pivot hinge member, insuring the movement of the last parts on said pivot, and reinforcing and strengthening the same by a single connecting plate or link, which latter is secured to the wood of the last parts in the firm solid portions remote from the dividing line of shortened or lengthened position, with ample bearing faces to resist breaking strains or torsional displacement, and all in a simple, cheap, efficient and easily assembled and operated structure.

My invention is further described and defined in the form of claims as follows:

1. A two-part last having said parts constructed and arranged for relative movement, and means for uniting said parts, comprising a pivotal uniting member and a rigid link member, said link having a slot therein through which the pivot extends.

2. A two-part last having said parts constructed and arranged for relative movement, plural means for uniting said parts, comprising a uniting pivotal member and a uniting rigid link member, in combination with constant acting tension means to hold said last parts in assembled position and compensate for looseness and wear.

3. A two-part last having said parts constructed and arranged for relative movement, and means for uniting said parts, comprising a uniting pivotal member and a uniting link member, the link member being united to the last parts at points disalined from the said pivot, in combination with a spring positioned each side of the link and extending in a line free of said pivot during the operation of flexing the last.

4. A hinge last of the kind described, having a forepart, a heel part, interlocking portions therebetween united by a pivot pin, recesses formed in both forepart and heel part, a link member in said recesses, and having its opposite ends secured respectively in the forepart and heel part, said link having a slot formed therein through which the pivot passes, and spring means extending within said recesses and secured to the link securing means whereby said last will be held in assembled position in a manner to automatically compensate for wear.

5. A hinge last of the kind described, having a forepart, a heel part, interlocking portions therebetween united by a pivot pin, recesses formed in both forepart and heel part, a link member in said recesses, and having its opposite ends secured respectively in the forepart and heel part, said link having a slot formed therein through which the pivot passes, and spring means extending within said recesses and secured to the link secu-

22 and 23 disalined with the central pivot 21 and fastening of these parts rigidly and firmly together, I secure the advantages incident to "springing" or "snapping" the heel parts from lengthened to shortened position or the reverse, as above noted. Bearing at each side of the plate 15 and with the ends engaging the rivets 22 and 23, I further provide the springs 16 and 17, which still further increases the resistance and tension incident to holding the last parts in either shortened or lengthened position, as well as to facilitate the snapping or springing of these parts from one position to another. With the centers 22, 23 and 21 disalined, and with the link construction as above explained, in combination with the constant tension of the springs 16 and 17, I have provided a smooth and efficient last locking construction to hold the last parts firmly in their desired connection.

In order to effect this combination of the pivot or hinge construction utilizing a central pivot pin 21, together with the link connection 15, I have provided this link member with a central slot 25, the same being of appropriate width to span the pivot pin 21, and being formed in the arc of relative movement between the forepart and heel part. This arc being of substantial width I prefer to form the plate 15 with a depending portion or projection 20, as heretofore noted; and for this purpose form the groove 11 in the lower part of the wood of the last, which, however, does not materially weaken the last nor does it weaken the bearing faces 5 and 6 in their function.

It will be appreciated that I have thus combined a pivot hinge and a link construction, accomplishing this result with but slight cutting away of the wood of the last, keeping the last parts substantially closed and protected, giving a strong pivot hinge member, insuring the movement of the last parts on said pivot, and reinforcing and strengthening the same by a single connecting plate or link, which latter is secured to the wood of the last parts in the firm solid portions remote from the dividing line of cut. Thus I have united the advantages of both a simple single link and a pivotal hinge construction, preferably disalining the link connections with the pivot hinge connection and by adding the spring tension members, I have produced a combined hinge and link last, with means to compensate automatically for looseness and wear, and which will stay effectually locked in either

My invention is further described and defined in the form of claims as follows:

1. A two-part last having said parts constructed and arranged for relative movement, and means for uniting said parts, comprising a pivotal uniting member and a rigid link member, said link having a slot therein through which the pivot extends.

2. A two-part last having said parts constructed and arranged for relative movement, plural means for uniting said parts, comprising a uniting pivotal member and a uniting rigid link member, in combination with constant acting tension means to hold said last parts in assembled position and compensate for looseness and wear.

3. A two-part last having said parts constructed and arranged for relative movement, and means for uniting said parts, comprising a uniting pivotal member and a uniting link member, the link member being united to the last parts at points disalined from the said pivot, in combination with a spring positioned each side of the link and extending in a line free of said pivot during the operation of flexing the last.

4. A hinge last of the kind described, having a forepart, a heel part, interlocking portions therebetween united by a pivot pin, recesses formed in both forepart and heel part, a link member in said recesses, and having its opposite ends secured respectively in the forepart and heel part, said link having a slot formed therein through which the pivot passes, and spring means extending within said recesses and secured to the link securing means whereby said last will be held in assembled position in a manner to automatically compensate for wear.

5. A hinge last of the kind described, having a forepart, a heel part, interlocking portions therebetween united by a pivot pin, recesses formed in both forepart and heel part, a link member in said recesses, and having its opposite ends secured respectively in the forepart and heel part, said link having a slot formed therein through which the pivot passes, and spring means extending within said recesses and secured to the link securing means, said link securing means being disalined from said pivot, whereby said last will be yieldingly locked in extended or shortened position, and will afford increasing resistance against dislodgment.

In testimony whereof, I have signed my name to this specification.

WALTER A. KRENTLER.

On the said fifteenth day of July, A. D. 1929, the following Affidavits were filed:

AFFIDAVIT OF ELLIS SPEAR, JR.

[Filed July 15, 1929.]

COMMONWEALTH OF MASSACHUSETTS,

COUNTY OF SUFFOLK, SS.

Ellis Spear, Jr., of Boston, Massachusetts, counsel for defendants-counter-claimants herein deposes and says as follows:

I have read the affidavits served on me by counsel for plaintiff-respondent herein, in accordance with the order of this court, and find in them certain inaccuracies and inconsistencies relative to matters in the record and certain things outside of the record with which I am familiar as counsel. I point these out in order that the court may be in possession of the exact facts which have bearing on the matter of contempt and the circumstances and nature of the acts involved.

In certain of the affidavits as I will later specify there is reference to correspondence with me and events of which I am supposed to have knowledge, and I attach hereto photostatic copies of such correspondence as seems to be involved to supplement the somewhat fragmentary references of the affidavits. Photostats of these letters involving my correspondence with various counsel and others involved are marked "Counterclaimants' Exhibits 1 to 36, inclusive, Spear Affidavit" and are offered herewith.

The affidavits and correspondence leave considerable uncertainty as to plaintiff's contention as to the dates or periods at which different counsel became or ceased to be authorized to represent the plaintiff-respondent corporation.

In Mr. Krentler's affidavit dated July 5, 1929 he says that Mr. James R. Hodder has not been counsel for the Krentler-Arnold Hinge Last Company since the date of the notice of February 11, 1929, and that I was advised to this effect by letter from attorney under date of February 13, 1929. I was not so advised. As to when Mr. Hodder ceased to be attorney or counsel for the

Krentler-Arnold Hinge Last Company, or if he did so cease, I had at that time no such knowledge and I was not advised by anyone under date of February 13, 1929 or otherwise, except by Mr. Hodder's letters of June 7 and 10, 1929, copies of which are included in the attached photostats. It is to be noted, however, that Mr. Hodder in his affidavit says that he ceased to be counsel for the plaintiff at the time the final decree was entered on March 1, 1928. I also note that in the letter to me of Barthel, Flanders & Barthel dated March 5, 1929, copy of which is attached, that they mentioned the necessity of consulting Mr. Hodder and there is also indication in these letters that Mr. Hodder was in touch with plaintiff. I had therefore assumed that Mr. Hodder was still representing plaintiff and I knew that his appearance had not been withdrawn in this cause.

In Mr. Krentler's affidavit dated July 3, 1929, page 2, he refers to submitting his new links to patent counsel for opinion as to whether or not the manufacture and sale of such new devices might constitute a violation of the decree of this court and of the injunction issued pursuant thereto. He does not, however, say when he did so.

In the affidavit of Louis E. Flanders, dated July 5, 1929, Mr. Flanders states that Mr. Krentler took up with him "several months ago" the matter of securing a patent for a hinge last construction and consulted him on the question of its violation of the injunction. On this he gives no date except that it was "several months ago", presumably several months prior to July 5, 1929. As bearing on these statements I call attention to the letter of Barthel, Flanders & Barthel under date of March 5, 1929, signed by Mr. Flanders, in which he refers to the fact that this present matter, *i. e.*, the matter of the new infringement in contempt, had but recently been turned over to him so that he was not informed as to the previous litigation and had to get in touch with Mr. Hodder. In this he also asks for more time in order to make a search of the prior art of which he said he had known very little. In Mr. Flanders' letter of March 13, 1929, while not mentioning dates, he indicates the short time that the matter had been before him and

his need of making himself familiar with the record in this case and to have searches made in the prior art. Such searches he said at that date (March 13, 1929) had not been completed.

Under date of April 24th in referring to letter of March 25th, Mr. Flanders again states that his firm had not investigated this matter thoroughly prior to my notice of February 11, 1929, and required time in which to do so. My notice was mailed to the Krentler-Arnold Hinge Last Company on February 11, 1929, and acknowledged by Mr. Flanders on February 13, 1929. Mr. Flanders refers to an application for patent filed by him on behalf or Mr. Krentler which shows the structure of the new Krentler link, but does not state when this application was filed. Mr. Krentler does not state when he first began to make the new links complained of, but I note in the affidavit of Alfred A. Peterson, of Detroit, Michigan, the statement that his company was given its first order for quantity production of the new sliding spring link in September, 1927.

I also note in the affidavit of Mr. Krentler dated July 3, 1929, in which he refers to his patent No. 1,459,061, and says that the last held to be an infringement in this cause was made under this patent. This is an error because this patent, of which he attaches a copy, shows a knuckle last in which the knuckle members on the fore-part and heel part are pinned together by a pin 21. As appears in the record in this case, the original infringing last as appeared before the court was not pinned together so as to be hinged at the knuckle joint, but was pressed together by the resilient link member, as in the present Krentler construction alleged to be in contempt.

I note the affidavit of Fred Drew in which Mr. Drew says that he is not now a director of the plaintiff corporation, but does not state when he ceased to be such a director. I have secured from the Michigan Department of State a certificate of the annual reports of the Krentler-Arnold Hinge Last Company for the years 1925, 1926, 1927 and 1928. Referring to the report signed by Mr. Krentler on the twenty-fourth day of August, 1928, Mr. Fred Drew of Brockton, Massachusetts, is named as a director for that

year and was therefore a director at the time the new infringement was instituted in 1927, during which year he was also a director as appears from Mr. Krentler's sworn statement of August 2, 1927. These certificates are offered herewith as Defendants-Counter-claimants Exhibits Nos. 37 to 40, inclusive, Spear Affidavit.

ELLIS SPEAR, JR.

Subscribed and sworn to before me, a notary public, this thirteenth day of July, 1929. VICTORIA LOWDEN,

[SEAL] *Notary Public.*

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**EXHIBIT No. 1—SPEAR AFFIDAVIT.**

[Written on face:] Send Reg. Mail Ret Rec Req. Act #361232 Net. Rec. Signed "Krentler Arnold Hinge Last Co. A. L. Riegel Signature of addressee's agent. Date of Delivery Feb. 12, 1929"

February 11, 1929.

Krentler-Arnold Hinge Last Company, Detroit, Michigan.

Dear Sirs: My client George E. Belcher Company and J. Howard Leman, Administrator C. T. A. of the Estate of George E. Belcher, Deceased, have called to our attention an advertisement over your name of a connecting link including a spring for hinge lasts. A photostat copy of this advertisement is sent herewith; this is from American Shoemaking of October 17, 1928. Upon investigation, we find that this is a longitudinally resilient link and in violation of a permanent injunction issued against you by the United States District Court forbidding your further direct or indirect infringement of Letters Patent No. 1,195,266.

Service of a copy of the injunction was acknowledged by your attorney James R. Hodder at Boston, Mass., December 2, 1926. This injunction enjoined and commanded that you "your officers, attorneys, agents, and employees and each of them, and all others acting by or for you or upon your behalf, shall not directly or indirectly make or cause to be made, use or cause to be used, sell or cause to be sold, lasts embodying or containing the invention covered by claims 1, 2, 3, 4, 6 and 7 of Letters Patent of the United States #1195266 issued August 22, 1916 to Otto A. Peterson and

any substantial or material part thereof or any substantial equivalent or colorable imitation thereof.

Unless you give immediate assurance that you have stopped this further infringement and make settlement for the same, we will be obliged to seek relief in Court against you and other last manufacturers who are infringing.

Very truly yours,

Reg article No. 361232

Return Receipt.

Received from the Postmaster the Registered or Insured Article, the original number of which appears on the face of this Card.

Krentler-Arnold Hinge Last Co.
(Signature or name of addresee.)

A. L. Riegel
(Signature of addressee's agent.)

Date of delivery, Feb. 12 1929

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**EXHIBIT No. 2—SPEAR AFFIDAVIT.**

[On letterhead of Barthel, Flanders & Barthel, 1034–40 First National Bank Building Detroit, Mich.]

February 13, 1929.

Mr. Ellis Spear, Jr., Tremont Building, Boston, Mass.

Dear Sir:—Your letter of February 11, 1929 to Krentler-Arnold Hinge Last Co., has been referred to us for our consideration and investigation, and we will reply thereto as soon as we have gone into the matter thoroughly.

Very truly yours,

BARTHEL, FLANDERS & BARTHEL
Per L E Flanders

LEF/M

[Stamped:] Feb 14 1929 Ans'd No

**EXHIBIT No. 3—SPEAR AFFIDAVIT.**

March 1, 1929.

Messrs. Barthel, Flanders & Barthel, 1034–40 First National Bank Building, Detroit, Michigan.

Attention of Mr. L. E. Flanders:

Re: Belcher *v.* Krentler-Arnold

Dear Sirs: We have been expecting to hear from you since your acknowledgement of February 13th of our previous letter of February 11th relative to the above.

We desire to extend you every courtesy possible, but feel obliged to call your attention to the fact that the situation involved does not permit of any extended delay. We are in fact ready to file our papers calling this matter to the attention of the court, but dislike to do this without at least this notice to you.

We hope to hear from you definitely as to your attitude in this matter before March 8th, at which time we will be obliged to file unless we have some very definite assurances from you.

Very truly yours,

1w/ ELLIS SPEAR, Jr.

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**EXHIBIT No. 4—SPEAR AFFIDAVIT.**

[On letterhead of Barthel, Flanders & Barthel, 1034–40 First National Bank Building, Detroit, Mich.]

March 5, 1929.

Mr. Ellis Spear Jr., Tremont Building, Boston, Mass.

Re: Belcher *vs.* Krentler-Arnold.

Dear Sir:—The present matter came into our hands through our having filed of late, several applications for Mr. Krentler on similar devices and we were therefore not informed as to the previous litigation and, in fact, knew very little about the last art.

When Mr. Krentler turned this present matter over to us, it was necessary for us to begin at the beginning in looking into this matter. In order to facilitate matters as much as possible, we immediately got in touch with Mr. J. R. Hodder, but as we were instructed to make a thorough search of the prior art, which we

are now doing, there has been some delay, but not an unreasonable one, we think, in view of the circumstances.

We are working on this matter and trust that you will not push us too hard in view of the circumstances.

Very truly yours,

BARTHEL, FLANDERS & BARTHEL
Per L. E. Flanders

LEF/M

[Stamped:] Mar 6 1929 Ans'd 3/7/29

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**EXHIBIT No. 5—SPEAR AFFIDAVIT.**

March 7, 1929.

Messrs. Barthel, Flanders & Barthel, First National Bank Building, Detroit, Michigan.

Re: Belcher *v.* Krentler-Arnold.
Attention Mr. L. E. Flanders.

Dear Sirs: We have yours of March 5th in the above and appreciate the circumstances under which this matter comes to your attention and would not wish to seem unreasonable in not giving you all the time necessary to investigate. We are very glad indeed that you are going into the matter thoroughly.

You will, of course, have noted that in the original case the Belcher Company was put to a great deal of trouble and expense, as the Court itself pointed out. We feel that your client is persisting in its infringement and is violating the injunction and under these circumstances our clients feel that the matter should be immediately submitted to the Court. We feel, however, that this ought not to be necessary and will defer the filing of our papers until March 15th in order that you may have time to review the situation. We do this, however, against our clients protest and with the understanding that unless we are able to reach some basis of understanding with you before that time, we will be compelled to present the matter to the Court.

Very truly yours,

ELLIS SPEAR, Jr.

lw/

**EXHIBIT No. 6—SPEAR AFFIDAVIT.**

[On lettehead of Barthel, Flanders & Barthel 1034–40 First National Bank Building, Detroit, Mich.]

March 13, 1929.

Mr. Ellis Spear, Jr., Tremont Building, Boston, Mass.

Re: Belcher *v.* Krentler-Arnold.

Dear Sir:—Replying to yours of the 7th inst.

We believe you have an entirely wrong impression as to the attitude of the Krentler-Arnold Company in this matter.

Clearly the injunction in the former case did not enjoin our client from manufacturing an entirely different construction and furnishing the various last manufacturers with hinges, and when the present hinge construction was devised, Mr. Krentler called our attention to the former case and asked us if, in our opinion, they could make and sell this hinge without violating the injunction. After reading the opinion and considering the data presented to us at that time, we informed our client that, in our opinion, it was not the intent of the Court to prevent them from manufacturing any form of hinge other than a hinge of the tppe shown in the patent in suit.

When our client received your first letter stating that the present hinge was being made in violation of the injunction, it was quite a surprise to them as well as to ourselves, and knowing your reputation as a reputable and conscientious Patent Attorney, we at once decided to investigate the situation further to find out if possible, upon what theory you based that notice, as upon the face of the decision, considered in the light of the evidence presented, we could not see why you should make such a statement. We, therefore, proceeded at once toward securing all data in connection with the former suits brought on the Peterson patent and to also search the prior art. During such investigation to date, the data secured has only further confirmed our previous opinion, some very interesting foreign data having been unearthed. But we have not completed our search, and we are sure you do not

wish to push us as you state that you are very glad indeed that we are going into the matter thoroughly.

In the last paragraph of your letter you state "unless we are able to reach some basis of understanding". Just what do you mean by this? As previously stated in this letter, we advised our clients that they were not violating the injunction, and we have no reason up to the present, to change that opinion. Our clients intend to follow our advice in the matter, but we would like to have a further explanation as to just what you mean by the above quoted phrase, that our client may govern itself accordingly.

Kindly let us have your immediate reply to the above so that we may take the matter up with our client.

Very truly yours,

BARTHEL, FLANDERS & BARTHEL,
Per L. E. Flanders

LEF/ED

[Stamped: Mar 14 1929]

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**EXHIBIT No. 7—SPEAR AFFIDAVIT.**

March 25, 1929.

Messrs. Barthel, Flanders & Barthel, 1034 First National Bank Building, Detroit, Michigan.

Attention of Mr. Flanders:

Re: Belcher *v.* Krentler-Arnold.

Dear Sirs: We have yours of March 13th in the above and note that Mr. Krentler called to your attention the injunction against his company at the time that their present hinge construction was devised and asked if in your opinion they could make and sell this hinge without violating the injunction.

As we now understand it, you have had this situation before you for sometime so that it is not a new matter as we had understood from your first letter. The Court found that the original infringement was deliberate and that the plaintiff in the original suit had carried its conduct of its case to the extreme. We note

that you seem to be of the opinion that the present link of the Krentler-Arnold Hinge Last Company is not in violation of the injunction. We are distinctly and definitely of the opinion that it is an infringement of the patent and a violation of the injunction and clearly within the terms of the injunction which also generally enjoined "any substantial equivalent or colorable imitation".

Under these circumstances, we feel that the wishes of our client to obtain immediate relief from the Court must be respected unless your client is willing to make immediate settlement. Unless we are able to reach some basis of understanding as to such settlement we must bring the matter before the Court at once.

We furthermore remind you of the fact that in its violation of the injunction your client is not only itself infringing, but is encouraging infringement among a considerable number of last manufacturers. In justice to these manufacturers who are using the new Krentler link and therefore, as we claim, are themselves infringing, we feel that we must proceed with all promptness.

Very truly yours,

1w/ ELLIS SPEAR, Jr.

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**EXHIBIT No. 8—SPEAR AFFIDAVIT.**

[On letterhead of Barthel, Flanders & Barthel, 1034–40 First National Bank Building, Detroit, Mich.]

Apr. 24, 1929.

Mr. Ellis Spear, Jr., Tremont Bldg., Boston, Mass.

Re: Belcher *vs.* Krentler-Arnold.

Dear Sir: Replying to your letter of March 25th last, relative to the above matter, it would seem that you misinterpret in the second paragraph of that letter, our previous letter in which we state that "Mr. Krentler called our attention to the former case and asked us, if in our opinion, they could make and sell the hinge without violating the injunction", as later on in the same letter we say "we at once decided to investigate the situation further". Therefore we had not investigated this matter thor-

oughly prior to your notice and required time of course, in which to do so.

We do not find in the decision of Judge Lowell the expression quoted by you to wit "any substantial equivalent or colorable imitation" but we do find, "While I am not prepared to say that it would cover any arrangement of a link and a spring, it is my opinion that it does cover the construction used by Krentler Co." (the construction which was discontinued in accordance with the injunction). Further, we find "It appears from the evidence of the prior art that Peterson invented an ingenious device whereby all the required functions of a hinged last could be furnished with the minimum of expense and the smallest number of parts.". "This he does by the use of a horse-shoe link, merely one member". The Hon. Court, therefore, evidently considered that the novelty of the Peterson construction resided in the shape of the spring used and this contention is borne out by a review of the prior art as presented at the time of the trial and as further substantiated by our investigation. A review of this prior art presents such a picture that we cannot stretch our imagination to such an extent as to construe the present structure manufactured and sold by the Krentler-Arnold Company to be in violation of the injunction.

In the last paragraph of your above referred to letter you state "is encouraging infringement among a considerable number of last manufacturers". How about the open, notorious and wide spread infringement of the Peterson patent which has been acquiesced in for several years by the Belcher Co., such as the Vulcan Last Co., of Portsmouth, Ohio.

We take this opportunity to warn the Belcher Company that intimidation of customers of the Krentler Company will not be countenanced and if continued, the proper steps will be taken to enjoin such methods.

Our investigation has convinced us that the Belcher Company is entirely at fault in its contention that the Krentler Company is violating the injunction by placing upon the market, its present

type of hinge, and that this hinge is an infringement of the Peterson patent. We have so advised our clients.

Respectfully yours,

BARTHEL, FLANDERS & BARTHEL.

LEF/AD Per L. E. Flanders

[Stamped:] Rec'd Apr 25 1929 Ret J & S. Ans'd no ans needed.

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**EXHIBIT No. 9—SPEAR AFFIDAVIT.**

May 29, 1929.

Mr. James R. Hodder, 505 Tremont Bldg., Boston, Mass.

Re: Krentler v. Belcher et al. Civil and Criminal Contempt Proceedings Equity 1853—Peterson Patent.

Dear Mr. Hodder: I am sending herewith a copy of an order to show cause why the Krentler-Arnold Hinge Last Company should not be held in civil and criminal contempt for violation of injunction, together with the supporting papers. These papers include:

(1) Order to show cause etc.
(2) Motion for Order
(3) Petition and Exhibits referred to therein
(4) Affidavit of Louis C. Smith and Exhibits referred to therein
(5) Affidavit of Mr. Southworth and exhibits referred to therein.

I am serving these papers on you as counsel of record, in accordance with the order of the court.

I am also sending a copy of these papers by Registered Mail, Return Receipt Requested directly to Krentler-Arnold Hinge Last Company at Detroit, in accordance with the order of the court.

Very truly yours,

4/T Enc. ELLIS SPEAR, Jr.

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**EXHIBIT No. 10—SPEAR AFFIDAVIT.**

K. A. H. L. Co. Copy Contempt papers.
Receipt for Registered Article No. 337902
Registered at the Post Office indicated in Postmark
Fee paid 52 cents Class postage 42

Return Receipt Fee 18 Spl. Del'y fee 10.
Delivery restricted to addressee: in person, or order R
Accepting employee will place his initials in space indicating restricted delivery.
Postmaster, per (Mailing Office)

(Signature or name of addressee.)
A. L. Riegel
(Signature of addressee's agent.)
June 6 1929

June 4, 1929

Krentler-Arnold Hinge Last Company, Detroit, Michigan.

Re: Krentler v. Belcher et al. Civil and Criminal Contempt Proceedings Equity 1853—Peterson patent.

Dear Sirs: I am sending herewith a copy of an order to show cause why Krentler-Arnold Hinge Last Company should not be held in civil and criminal contempt for violation of injunction, together with the supporting papers. These papers include:

(1) Order to show cause etc.
(2) Motion for Order
(3) Petition and Exhibits referred to therein
(4) Affidavit of Louis C. Smith and Exhibits referred to therein
(5) Affidavit to Mr. Southworth and exhibits referred to therein.

I am sending a copy of these papers to you by Registered Mail, in accordance with the order of the court. I am also serving a copy of these papers on James R. Hodder, attorney of record in this case, in accordance with the order of the court.

Very truly yours,

4/T Enc.
ELLIS SPEAR, Jr.
1009 Majestic Bldg. Detroit, Mich.

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**EXHIBIT No. 11—SPEAR AFFIDAVIT.**

Fred Drew. Copies Contempt papers.
Receipt for Registered Article No. 337901
Registered at the Post Office indicated in Postmark

Fee paid 52 cents Class postage

Return Receipt fee Spl. Del'y fee 10c

Delivery restricted to addressee: in person, or order

Accepting employee will place his initials in space indicating restricted delivery.

Postmaster, per (Mailing Office)

Complete record of registered mail is kept at the post office, but the sender should write the name of the addressee on back hereof as an identification. Preserve and submit this receipt in case of inquiry or application for indemnity.

Return Receipt Requested.

Boston, Mass. (State House Sta.) Registered Jun 4 19-9

Fred Drew

(Signature or name of addressee.)

(Signature of addressee's agent.)

June 5, 1929

June 4, 1929

Mr. Fred Drew, Director of Krentler-Arnold Hinge Last Company, c/o Brockton Last Company, Brockton, Mass.

Re: Krentler *v.* Belcher et al. Civil and Criminal Contempt Proceedings Equity No. 1853—Peterson patent.

Dear Mr. Drew: I am sending herewith a copy of an order to show cause why Krentler-Arnold Hinge Last Company should not be held in civil and criminal contempt for violation of injunction, together with the supporting papers. These papers include:

(1) Order to show cause etc.

(2) Motion for Order

(3) Petition and Exhibits referred to therein

(4) Affidavit of Louis C. Smith and Exhibits referred to therein

(5) Affidavit of Mr. Southworth and exhibits referred to therein

I would direct your attention particularly to page 3 of the petition, where you are specifically named as a director of the Krentler-Arnold Hinge Last Company, who has violated the injunction.

I am sending a copy of these papers to you by Registered Mail, in accordance with the order of the court. I am also serving a

copy of these papers on James R. Hodder, attorney of record in this case, in accordance with the order of the court.

I am also sending a copy of these papers by Registered Mail, Return Receipt Requested to the Krentler-Arnold Hinge Last Company, 1009 Majestic Building, Detroit, Michigan.

Very truly yours,

4/T Enc.

ELLIS SPEAR, Jr.

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**EXHIBIT No. 12—SPEAR AFFIDAVIT.**

June 4, 1929.

Barthel, Flanders & Barthel 1034–1040 First National Bank Bldg., Detroit Michigan.

Re: Krentler-Arnold Hinge Last Co. *v.* George E. Belcher Company, & J. Howard Leman, Admr. C. T. A. of Estate of George E. Belcher, Deceased. Equity No. 1853 in U. S. Dist. Court—Dist. of Mass. on Peterson patent 1,195,266.

Re: Proceedings in Civil and Criminal Contempt for Violation of Injunction.

Dear Sirs: I have today obtained an order to show cause why the Krentler-Arnold Hinge Last Company should not be held in contempt for violation of the injunction previously issued. This order to show cause is signed by Judge James A. Lowell, and made returnable Monday June 24th at the Federal Courts Building, formerly Young's Hotel Boston.

Under the order of the court, service of a copy of the order, together with the motion, petition and supporting affidavits has been made upon James R. Hodder as counsel of record in the above identified case, for the Krentler-Arnold Hinge Last Co. I have also sent a copy of these papers, by Registered Mail, to the Krentler-Arnold Hinge Last Company at Detroit; these papers will undoubtedly be delivered to you by the plaintiff.

I have also sent a copy of these papers by Registered Mail to Fred Drew, a director of the Krentler-Arnold Hinge Last Company at Brockton, Mass. at which place he has manufactured lasts embodying the link supplied by Krentler and claimed to be in vio-

lation of the injunction. I shall of course be glad to extend ot counsel for plaintiff, any reasonable courtesies, and to accommodate you wherever possible in the matter of time.

You undoubtedly can fully appreciate that in this case, it was necessary for me to make service of these papers in the above identified cause, upon Mr. Hodder, as he is counsel of record in this case. So far as I have been able to ascertain, your appearance has not been entered in this cause.

Very truly yours,

4/T ELLIS SPEAR, Jr.,

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**EXHIBIT No. 13—SPEAR AFFIDAVIT.**

[On letterhead of James R. Hodder.]

Boston, Mass. June 4, 1929.

Mr. Ellis Spear, 626 Tremont Bldg., Boston, Mass.

Dear Sir: Today, when Mr. Gale of your office handed to me a set of papers which he stated he wished to serve on the Krentler-Arnold Hinge Last Co., I informed him that I could not accept such service, and that I had no authority whatever in the matter. Also, I reminded Mr. Gale, and herewith remind you that I understand that you have been in continuous correspondence during the past six months with the Krentler-Arnold Co's attorneys, Messrs. Barthel, Flanders & Barthel of Detroit, Michigan, who are and should be the parties to whom you should send any communications in this matter, and who should be accorded the proper courtesy of ample notice in any further proceedings.

Very truly yours,

JRH:M JAMES R. HODDER.

[Stamped:] Rec'd Jun 4, 1929 Answ'd No. Filed 727

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**EXHIBIT No. 14—SPEAR AFFIDAVIT.**

[On letterhead of Brockton Last Company.]

Brockton, Mass., June 5, 1929

Ellis Spear, Jr., 625 Tremont Building, Boston, Massachusetts.

Dear Mr. Spear: I am in receipt of your package sent to me

by special delivery, registered mail, and directed to me as a director of the Krentler, Arnold Hinge Company. I am not a director in the Krentler, Arnold Hinge Company and have not been for some time. Therefore, I am returning to you the papers under separate cover. Yours truly,

FD;AIB FRED DREW.

[Stamped:] Rec'd Jun 6 1929.

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**EXHIBIT No. 15—SPEAR AFFIDAVIT.**

[On letterhead of James R. Hodder.]

Boston, Mass. June 7, 1929.

Mr. Ellis Spear, 626 Tremont Building, Boston, Mass.

Dear Mr. Spear: Supplementing my notice to you of June 4 regarding the mass of papers Mr. Gale left on my desk on that date, I telegraphed Detroit of this fact and that I had refused to accept service as my authority had been entirely ended with the closing of the original Belcher-Krentler suit. I have no instructions or response from Detroit and therefore return the package herewith which Mr. Gale left. Very truly yours,

JRH:M JAMES R. HODDER.

[Stamped:] Rec'd Jun 7 1929

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**EXHIBIT No. 16—SPEAR AFFIDAVIT.**

[Written on face:] Package of Contempt Papers Ret to Drew—mailed Reg R R R. #397283 S. of C. Del.—mailed June 8, 1929 S. S. P. O.

This letter Reg Let R R R #397284 mailed June 28, 1929 S S P O.

E B G.

June 7, 1929.

Fred Drew, Director K. A. H. L. Co. c/o Brockton Last Company, Brockton, Massachusetts.

Re: Krentler-Arnold Hinge Last Co. v. Belcher et al.—Civil and Criminal Contempt Proceedings—Equity No. 1853
Peterson Patent 1195266.

Dear Mr. Drew: I have your letter of June 5th in which you

state that you are returning the copy of the papers in the contempt proceedings, which, under the order to show cause made by Judge Lowell, are returnable for hearing in the Federal Court's Building Monday, June 24th.

I have also received the return receipt for the Registered Mail, containing the copies of the papers in the contempt proceedings, which receipt was signed by you.

I have also received the envelope containing the papers which you returned. I note that the envelope was opened, so that you undoubtedly had an opportunity to examine the papers in this contempt proceedings. In view of the fact that you were a director of the Krentler-Arnold Hinge Last Company during the pendency of the active litigation, and in view of the fact that a copy of the permanent injunction was sent to you, that you were further notified by letter from George E. Belcher Company, on or about March 11, 1929, that the modified form of spring link supplied to you and embodied in lasts sold by you, was claimed to be in violation of the injunction, and in view of the further fact that you were specifically named on page 3 of the petition, I felt it to be only fair and proper that in addition to serving copies of these papers upon Mr. Hodder in Boston and the Krentler-Arnold Hinge Last Company in Detroit, that it was only fair and proper to you that you should also receive a copy of the papers in this contempt proceeding in order that you may have full notice and take such steps as you deem advisable in answering the same.

I note in your letter that you state "I am not a director of the Krentler-Arnold Hinge Last Company". This appears to be the main reason for returning the papers. Contempt proceedings are of a serious nature and are not to be lightly considered. It would be a source of regret I feel to yourself, and to me also, if the court were to take action prejudicial to you, upon the hearing of these proceedings, through your default or failure to answer, through misapprehension on your part as to the relative importance as to whether or not you are now a director of the Krentler-Arnold Hinge Last Company, where it clearly appears that you were a

director during the litigation, and had full and fair notice of the injunction.

We shall, of course, contend, at the hearing, that under these circumstances, if your acts in making and selling lasts embodying the modified form of spring link obtained from the Krentler-Arnold Hinge Last Company, constitutes an infringement in violation of the injunction, your liability for contempt, cannot be avoided by merely resigning your position as director of the Krentler-Arnold Hinge Last Company. I shall of course submit authorities to sustain this contention.

As indicating the extent to which the courts have gone, I would quote the following from a case in the United States Supreme Court in re Lennon 166 U. S. 548:

> "The facts that petitioner was not a party to such suit, nor served with process of subpoena, nor had notice of the application made by the complainant for the mandatory injunction, nor was served by the officers of the court with such injunction, are immaterial, so long as it was made to appear that he had notice of the issuing of an injunction by the court. To render a person amenable to an injunction it is neither necessary that he should have been a party to the suit in which the injunction was issued, nor to have been actually served with a copy of it, so long as he appears to have had actual notice. High on Injunctions 1444; Mead *v.* Norris, 21 Wisconsin, 310; Wellesley *v.* Mornington, 11 Beav. 181."

I have gone to this extent, in referring to these matters, in order that you may have full and fair notice of our position in this matter, and that you may not be under a misapprehension as to the nature of the proceedings because we shall urge your responsibility whether or not you retain these papers.

In view of what I have stated above, I am therefore returning copies of the papers in this contempt proceedings to you under separate cover by registered mail, return receipt requested and

sent by Special Delivery, so that you may take this matter up with your counsel if you see fit to do so.

Very truly yours,

4/T ELLIS SPEAR, Jr.

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**EXHIBIT No. 17—SPEAR AFFIDAVIT.**

June 7, 1929.

James R. Hodder, Esq., 505 Tremont Building, Boston, Mass.

Re: Krentler-Arnold Hinge Last Co. v. George E. Belcher Co. et al. Equity No. 1853—Dist. of Mass. on Letters Patent 1195266

Re: Civil and Criminal Contempt Proceedings against Plaintiff.

Dear Mr. Hodder: I have your letter of June 4th for which I thank you.

Mr. Gale informs me that when he served the papers on you, he advised you that he was doing so in accordance with the order to show cause why Krentler-Arnold should not be held for contempt of court for violation of the injunction, which order was made by Judge Lowell. He further informs me that he stated to you that the papers were served upon you as attorney of record and further that he informed you that the papers included a copy of the order to show cause in contempt proceedings and the supporting petition and affidavits.

Upon inquiry from you as to the return date, I understand he advised you that this date was June 24th.

I am advised by Mr. Gale that when you raised the question as to whether or not you were still attorney of record, Mr. Gale asked you whether or not you had ever filed in the above case, your notice of withdrawal as attorney of record, and you admitted to him that you had not.

Of course, I have had some correspondence with Messrs. Barthel, Flanders & Barthel of Detroit, Michigan and I felt, that as a matter of courtesy to them, I should advise them of the contempt proceedings that have been started, and have offered to extend every reasonable courtesy to counsel for Krentler with regards to time. It is quite obvious from your letter, and your conference

with Mr. Gale that you were quite familiar with the correspondence referred to in your letter. Very truly yours,

4/T

ELLIS, SPEAR, Jr.

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**EXHIBIT No. 18—SPEAR AFFIDAVIT.**

[On letterhead of Barthel, Flanders & Barthel, 1034–40 First National Bank Building, Detroit, Mich.]

June 8, 1929.

Mr. Ellis Spear, 626 Tremont Bldg., Boston, Mass.

Dear Sir: Our Mr. Otto F. Barthel who has entire charge of litigation in connection with our business, has been in New York and Washington for the past week or more and will not be able to return before the 12th. Mr. Barthel, therefore, has had no opportunity whatever to go over this show cause order or to even enter appearance in the case because of such absence. It is quite probable that Mr. Barthel will wish to get an extension of time in this matter, and we are writing you at this date only to inform you of the situation and ask that you be prepared to grant an extension if Mr. Barthel finds it necessary to ask for one.

It is unfortunate that this matter has come up just at this time, but we are sure that you will be glad to accommodate us under the circumstances. Very truly yours,

BARTHEL, FLANDERS & BARTHEL

LEF/M

Per L E Flanders

[Stamped:] Recd Jun 10 1929 Ret. S

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**EXHIBIT No. 19—SPEAR AFFIDAVIT.**

June 10, 1929

Barthel, Flanders & Barthel, 1034–1040 First National Bank Bldg., Detroit, Michigan.

Re: Krentler Arnold Hinge Last Company *v.* George E. Belcher Company et al. Equity No. 1853 in U. S. Dist. Court of Mass.—On Peterson patent 1195266.

Re: Proceedings in Civil and Criminal Contempt for violation of Injunction.

Dear Sirs: I have your letter of June 8th in reply to my letter

of June 4th. I assume from what you state in your letter that the Krentler-Arnold Hinge Last Company has delivered to you the copy of the order to show cause together with the petition and the supporting affidavits and exhibits, receipt of which papers by Registered Mail having been acknowledged by the Krentler Company on June 6th. If an extension of time is desired by counsel for Krentler in the above identified cause, under the order to show cause made by Judge Lowell in these contempt proceedings, this extension can undoubtedly be provided for upon stipulation of the counsel for respective parties, and the approval of Judge Lowell to a modification of his original order in respect to these dates stipulated upon.

As stated in my letter of June 4th to you, I shall be glad to accommodate you in this matter of time extension to dates which will be mutually convenient. As my calendar now stands, July 15th would be a convenient date for the return day of the hearing before Judge Lowell and I would suggest July 8th as the date when your answering affidavits would be due as indicated in the court order, and July 13th as the date when the defendant's reply affidavits would be due. I am suggesting these dates at this time, in order to save time and would suggest that if you desire an extension, and these dates meet your convenience, that you prepare and sign a form of stipulation, and I shall submit it to Judge Lowell for his approval and have the original order to show cause, modified with respect to the dates therein stated.

I would appreciate an early indication of your pleasure in this matter.

Very truly yours,

4/T

ELLIS SPEAR, Jr.

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**EXHIBIT No. 20—SPEAR AFFIDAVIT.**

[On letterhead of James R. Hodder.]

Boston, Mass. June 10, 1929.

Mr. Ellis Spear, 626 Tremont Bldg., Boston, Mass.

Dear Mr. Spear: I have yours of June 7 which, however, does not state the facts. I also informed Mr. Gale that I could not accept service of the papers he left on my desk since my authority

was ended; that I had lost the case and hence lost the client; and that I was aware that, six months ago, your office had been in correspondence with Krentler-Arnold Company's regular attorneys, Barthel, Flanders & Barthel of Detroit, and that I was not a party to these further proceedings.

I know of no rule requiring me to file a withdrawal of my power of attorney after a case has been settled and disposed of, so far as I am aware. You must have known that I had no further authority in this matter as you have been in active correspondence with other attorneys, and your effort to serve on me was a complete surprise, and certainly cannot bind my former client. I took the precaution of telegraphing to Detroit that papers had been left with me, but that I had not read same as I was well aware that I would not be retained in this further proceeding nor could I make any charge for services in connection therewith. I cannot but help state that I am surprised at your tactics in this matter.

Very truly yours,

JRH : M

JAMES R. HODDER.

[Stamped:] Jun. 11 1929

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**EXHIBIT No. 21—SPEAR AFFIDAVIT.**

June 11, 1929.

James R. Hodder, Esq., 505 Tremont Building, Boston, Massachusetts.

My dear Hodder: Yours of June 10th comes in after the enclosed was typed and I note that in it you say that you did not read the papers in the above left with you by Mr. Gale.

I hate to have to write these long letters just as much as you dislike to receive them, but I am merely trying to make sure that you understand what we are doing. There is on file at the Clerk's office an order to show cause with instructions to serve on you. You certainly have notice of it and we have in the accompanying letter merely tried to tell you what the order was and why we think that it was and is your obligation to the Court to accept service.

I do not wish to annoy you with copies of the papers if you do

not wish them. As far as we are concerned at present, we have done our duty in delivering to you. Any time you want them let us know and we will be glad to send them down to you.

I am sorry that you seem to think my procedure unusual. Doubtless we do disagree both in our understanding of the situation and of the law, but we have disagreed before.

Of course I regret that these proceedings are necessary.

Very truly yours,

1/T ELLIS SPEAR, Jr.

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**EXHIBIT No. 22—SPEAR AFFIDAVIT.**

June 11, 1929.

James R. Hodder, Esq., 505 Tremont Building, Boston, Mass.

Re: Krentler-Arnold Hinge Last Company v. George E. Belcher Company et al.—Equity No. 1853 in U. S. Dist. Court of Mass.—On Peterson patent 1195266

Re: Proceedings in Civil and Criminal contempt for violation of Injunction.

Dear Mr. Hodder: I have your letter of June 7th together with the return of the package which Mr. Gale left with you on June 4th, said package containing the papers in the contempt proceedings, including (1) Order to Show Cause Why Krentler-Arnold Hinge Last Company should not be Held in Civil and Criminal Contempt, this order having been made by Judge Lowell, June 4th, and returnable for hearing June 24th. Attached to this order were copies of the motion, the petition, and supporting affidavits of Mr. Louis C. Smith and Mr. Southworth together with a copy of the paper exhibits.

You stated that you sent a telegram to Detroit (presumably to the Krentler-Arnold Hinge Last Company) informing said company of the receipt of such papers by you.

I assume that you fully acquainted yourself with the nature of these proceedings and contents of the papers in the contempt proceeding left with you, in order that you might inform the Krentler Company by telegram of the nature of the papers and the proceedings to which they relate.

Of course, it is not my purpose to argue with you, the merits of the effect of the service of those papers made upon you on June 4th in accordance with the order of the court, and your statement that "my authority had been entirely ended with the closing of the original Belcher-Krentler suit". I feel this is a matter which can very properly be considered at the hearing upon the return day before Judge Lowell. I shall, of course, contend that the Krentler Company has had proper notice of these civil and criminal contempt proceedings, and that your contention that your authority had been entirely ended with the closing of the original Belcher-Krentler suit, and your return of the package containing the papers, particularly where the record in the original case shows that you were still attorney of record and you admitted at the time of service, that you had not filed any notice of your withdrawal as counsel of record for Krentler.

I do not mind paying you the courtesy of calling to your attention at this time one of the numerous authorities which I shall direct the attention of the court to, which I feel supports my contention. (See 135 F. R. 774 Christensen Engineering Co. *v.* Westinghouse Air Brake Co. 2 C. C. A.). In this case, service had been made, in a contempt proceeding, after the issuance of an injunction, upon the defendant's counsel of record in New York, the defendant having a principal place of business in Wisconsin. Service was also made upon the defendant corporation by sending a copy of the papers Registered Mail, which, the defendant "refused". The court held that service of a copy of an injunction upon solicitors for defendant in an equity suit should be deemed equivalent to actual notice to the defendant of the contents, and it is the duty of the solicitor promptly to inform his client of the contents of the document and the presumption is that he has done so. The court also states that in contempt proceedings, it is not indispensable that the party proceeded against be actually served with notice of the application for the attachment, and that where service is made upon the solicitors of record, that it is presumed that he gave prompt notice of the application. The court also stated "if the defendant chose to refuse to receive the

Registered Mail which had been sent to it, it was in no better position to raise the objection which has been urged than a party would be who had concealed himself to avoid service."

In view of my statement of the contention of Belcher in this contempt proceeding, that I shall urge that you are to be charged as counsel of record for Krentler Company with the full knowledge of the nature and contents of the papers left with you, I think it only fair and proper that I should return to you these papers, so that in view of the case above referred to, which might not have been called to your attention, you might take such action as you deem advisable.

I am returning these papers to you under separate cover, by Registered Mail, Return Receipt Requested.

Very truly yours,

4/T ELLIS SPEAR, Jr.

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**EXHIBIT No. 23—SPEAR AFFIDAVIT.**

[On letterhead of James R. Hodder.]

Boston, Mass. June 12, 1929.

Mr. Ellis Spear, 626 Tremont Bldg., Boston, Mass.

Dear Mr. Spear: I have just returned from Washington, and have your two letters of June 11.

I cannot understand why I should be under any obligation to accept service and put in much time and work studying the voluminous papers involved when I have neither retainer nor instructions from the Krentler Co., a foreign corporation, particularly when negotiations for several months have been carried on by you with the Krentler Co's present attorneys. How would it be possible for me to prepare answering affidavits or other data to aid the court in getting the present issues fairly on record when the party is 800 miles away and has other attorneys who have had correspondence with you for many months?

I understand that you sent duplicate copies of all your papers to Detroit, and presumably Barthel, Flanders & Barthel will appear or have someone here appear.

As a matter of utmost good faith on my part I telegraphed Detroit simply that papers had been served, followed this with a letter, so notified you, and have filed copies of my correspondence in the District Court so that Judge Lowell can see my position.

If I am directed to represent Mr. Barthel, I should be pleased to do so, and will then accept your proffer of delivery of the copies of papers as I certainly will be interested in learning your present contention which, I understand, is to the rather extraordinary effect that the Peterson patent on a single horseshoe hinge member for a last, having been construed to cover a two part hinge, can now be extended to cover a three part hinge of old and very different construction. I am not fully posted on what the present contentions are, but I stopped at Detroit last March and had a brief talk with Mr. Barthel on this matter, since which time I have had no active connection with the same.

Very truly yours,

JRH : M

JAMES R. HODDER

[Stamped :] Jun 13 1929 Rec'd

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**EXHIBIT No. 24—SPEAR AFFIDAVIT.**

[On Western Union telegram blank.]

Received at 169 Congress St., Boston, Mass. 1929 Jun 17 P. M.

ZB255 10-Detroit Mich 17 1153A

Mr Ellis Spear Jr., 625 Tremont Bldg Boston Mass.

Jun 17 1929

Just returned from New York forwarding stipulation your letter June tenth.

OTTO F. BARTHEL.

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**EXHIBIT No. 25—SPEAR AFFIDAVIT.**

June 19, 1929.

Mr. Fred Drew, Director Krentler-Arnold c/o Brockton Last Company, Brockton, Mass.

Re: Krentler-Arnold Hinge Last Co. *v.* Belcher et al. Civil and Criminal Contempt Proceedings Equity #1855 D. C. Mass—Peterson patent 1195266

Dear Mr. Drew: I have received the return receipt signed by

you June 10, 1929 acknowledging receipt of registered article #397284, which contained my letter to you dated June 7, 1929. In this letter you were advised that the papers in the civil and criminal contempt proceedings which you had previously opened, examined and returned to me, were being resent to you under separate cover. In today's mail, copies of papers in the Civil and criminal contempt proceedings that had been resent to you by registered mail, return receipt requested, special delivery, registered article #397283, was returned unopened. On the outside of this package was marked "Return to Sender—Unclaimed". "Returned to Sender.". In pencil was written on the envelope the following: "Will Call". There also appears on the envelope "June 13, 1929—Second Notice, No reply to first Notice Mailed—". It is perhaps possible, that through some oversight, delivery was not affected, or it is possible, that on account of the previous notice that you had from my letter of June 7, 1929 that you refused to accept delivery of these papers by registered mail.

In order to give you the benefit of any doubt, I am again sending these papers to you, under separate cover, regular mail.

Very truly yours,

4/T ELLIS SPEAR, Jr.

[Written on face:]

Send Reg. Mail Ret Rec Seq. Reg Article #228697 Ret Rec. Signed "Fred Drew B. M. Foss Signature Addressee Agent Date Delivery June 21 1929"

[Post Office cancellation stamp:] Brockton Jun 21 1929 7 P M

**EXHIBIT No. 26—SPEAR AFFIDAVIT.**

[On Western Union Telegram form.]

June 20, 1929.

Otto Barthel 1034–1040 First National Bank Building Detroit, Michigan.

In Belcher versus Krentler proceedings stipulation forwarded accordance your telegram June seventeenth not received stop to avoid misunderstanding stipulation modifying time under court

order should be filed and approved by court soon as possible before June twenty fourth stop understand you will file for record general appearance as Krentlers counsel this case stop please wire confirmation and whether stipulation sent.

ELLIS SPEAR, Jr.

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**EXHIBIT No. 27—SPEAR AFFIDAVIT.**

[On letterhead of Roberts, Cushman & Woodberry.]

Boston June 20, 1929

Eiffel B. Gale, Esquire c/o Ellis Spear, Jr. 626 Tremont Building Boston, Massachusetts

Dear Mr. Gale: Confirming our telephone talk, I enclose the stipulation which I have received from Messrs. Barthel, Flanders & Barthel of Detroit, Michigan in the case of Krentler-Arnold *v.* Belcher. If you find this in order, will you kindly sign and return to me one copy. Yours very truly,

ROBERT CUSHMAN

RC:HC Enc:

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**EXHIBIT No. 28—SPEAR AFFIDAVIT.**

June 20, 1929.

Barthel, Flanders & Barthel, 1034 First National Bank Bldg., Detroit, Michigan.

Attention of Otto Barthel:

Re: Krentler-Arnold Hinge Last Company v. George E. Belcher Company, et al. Equity No. 1853 in U. S. Dist. Court of Mass.—On Peterson patent No. 1,195,266.

Re: Proceedings in Civil and Criminal Contempt for Violation of Injunction:

Dear Sir: On June 18th, I received from you a telegram as follows:—

"Just returned from New York, forwarding stipulation your letter June 10th. Otto F. Barthel."

Your telegram was dated June 17th but as this is a holiday in Boston I did not receive it until the following day.

As I had not received the stipulation referred to in the telegram, I thought it best, in order to avoid any misunderstanding that I send you a telegram as follows:—

> "In Belcher *v.* Krentler proceedings stipulation forwarded accordance your telegram June 17th not received stop to avoid misunderstanding stipulation modifying time under court order should be filed and approved by court as soon as possible before June 24th stop understand you will file for record general appearance as Krentler counsel this case stop please wire confirmation and whether stipulation sent stop
>
> Ellis Spear, Jr."

Late this afternoon, I received a telephone call from Mr. Robert Cushman of the firm Roberts, Roberts & Cushman stating that he had received a letter from you together with a stipulation providing for the extension of times under order originally made by Judge Lowell. I understand that Roberts, Roberts & Cushman are still attorneys of record in this case for the Krentler-Arnold Hinge Last Company. Mr. Cushman stated that he would sign the stipulation and send it to me. I stated to Mr. Cushman that I would try to obtain the approval of Judge Lowell to the stipulation tomorrow.

Very truly yours,

4/M

ELLIS SPEAR, Jr.

P. S. Am I correct in my understanding that you are to file your appearance as counsel for Krentler-Arnold Hinge Last Company in this case? I am making this inquiry in order to have a definite understanding as perhaps you undoubtedly know that Mr. Hodder has filed a formal notice of withdrawal as one of the counsel of record for Krentler-Arnold Hinge Last Company.

**EXHIBIT No. 29—SPEAR AFFIDAVIT.**

United States District Court.
District of Massachusetts.
Equity 1853
on Letters Patent 1,195,266

Krentler-Arnold Hinge Last Company *v.* George E. Belcher & J. Howard Leman, Admr. C. T. A. of Estate of George E. Belcher, Deceased,

STIPULATION

It is hereby stipulated by and between the parties hereto, with the approval and consent of this Honorable Court, that the times provided in the Order of Judge Lowell in this cause made and provided for the plaintiff to show cause upon motion of the defendants for civil and criminal contempt made the 24th day of June, 1929, be extended to the 15th day of July, 1929, and the time for filing affidavits by the plaintiff be extended to the 8th day of July, 1929, and the time for the defendants to file affidavits in reply be extended to the 13th day of July, 1929.

ROBERTS, CUSHMAN & WOODBERRY,
Attorneys for Plaintiff,
Appearing specially to object to the jurisdiction,
and for no other purpose.

Boston, Mass., June 20, 1929.

Attorneys for Defendants.

Boston, Mass. June , 1929.

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**EXHIBIT No. 30—SPEAR AFFIDAVIT.**

June 21, 1929.

Roberts, Cushman & Woodberry, 31 Milk Street, Boston, Mass,
Attention of Mr. Robert Cushman.

Re: Krentler-Arnold Hinge Last Co. *v.* George E. Belcher et al.
Civil and Criminal Contempt Proceedings Equity 1953
U. S. Dist. Ct. Mass.—Peterson patent 1195266.

Dear Mr. Cushman: I have your letter of June 20th together with

the original and one copy of a form of stipulation captioned in the above identified cause, which stipulation you stated was received from Messrs. Barthel, Flanders & Barthel of Detroit.

Late Thursday afternoon, when you read to me over the telephone, the body of the stipulation, I assumed that you were appearing generally as counsel for the Krentler-Arnold Hinge Last Company particularly in view of your general appearance filed in this case February 12, 1925. I indicated to you over the telephone that the body of the stipulation appeared to be satisfactory, but that it would be necessary to submit the same to Judge Lowell for his approval, particularly in view of the unusual character of these contempt proceedings in which the court has a very special interest.

Upon receiving the original and copy of the stipulation in this morning's mail, I note that there appears under your signature "attorneys for plaintiff, appearing specially to object to the jurisdiction and for no other purpose."

In talking to you this morning over the telephone, I tried to make it clear that the court consenting, the defendant would offer no objection to a stipulation extending time for consideration of the merits of the case. However, in view of the technical point which you appear to be raising, in that you are "appearing specially to object to the jurisdiction and for no other purpose" it was indicated to you that in view of this turn of events, I thought it would be necessary to submit the matter to Judge Lowell.

I understand that you shall appear before Judge Lowell, Monday morning to present such matters as you deem advisable in response to the order to show cause made on June 4th by Judge Lowell.

If you desire any copies of the papers in this contempt proceedings, I should be very glad to provide you with the same.

Very truly yours,

4/T. ELLIS SPEAR, Jr.

P. S. In accordance with the telephone conversation this morning, I am returning herewith the original and one copy of the stipulation forwarded with your letter of June 20th.

**EXHIBIT No. 31—SPEAR AFFIDAVIT.**

June 25, 1929.

Mr. Fred Drew, c/o Brockton Last Co. Brockton, Mass.

Re: Krentler *v.* Belcher—Civil and Criminal Contempt Proceedings Equity 1853 on Peterson patent 1195266

Dear Sir: I am writing to advise you that the original order to show cause in the above identified cause, issued by Judge Lowell on June 4th, has been modified by Judge Lowell so as to extend the dates under such order as follows:

The return day for the hearing has been extended from June 24th to July 15th.

The time for filing affidavits by plaintiff and yourself has been extended from June 19th to July 8th, and

The time for the defendant to file affidavits in reply, has been extended from June 22nd to July 13, 1929.

Very truly yours,

4/T ELLIS SPEAR, Jr.

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**EXHIBIT No. 32—SPEAR AFFIDAVIT.**

June 25, 1929.

James R. Hodder, Esq., 505 Tremont Building, Boston, Mass.

Re: Krentler *v.* Belcher—Civil and Criminal Contempt Proceedings Equity 1853 on Peterson patent 1195266

Dear Mr. Hodder: I have your letter of June 12th in which you state that you have filed copies of your correspondence in the District Court. I have been to the District Court and examined such copies as I found, but I find no copies of telegrams or letters which you sent to Detroit.

I discovered at the Clerk's office, that on June 10th there was filed by you what purports to be a formal notice of withdrawal as attorney for the Krentler-Arnold Hinge Last Company. In order to make it clear of record, and in order that the rights of my client may in no way be prejudiced by the notice of withdrawal filed by you, I am filing a notice, technically objecting to your notice of withdrawal. I, of course, have no objection to your personal with-

drawal as counsel of record, as much as I may personally regret your doing so. I am objecting and protesting to your notice of withdrawal, only insofar as the same might tend to prejudice the rights of my client in this contempt proceeding under any question of sufficiency of notice in jurisdiction that the Krentler-Arnold Hinge Last Company might raise.

I want again to express to you my personal regret in your withdrawal.

Very truly yours,

3/T

ELLIS SPEAR, Jr.

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**EXHIBIT No. 33—SPEAR AFFIDAVIT.**

July 1, 1929

Roberts, Cushman & Woodberry, 31 Milk Street, Boston, Mass.

Attention: Robert Cushman

Re: Krentler-Arnold Hinge Last Company *v.* George E. Belcher Company, et al. Equity No. 1853 in U. S. Dist. Court of Mass.—on Peterson patent No. 1,195,266.

Re: Proceedings in Civil and Criminal Contempt for violation of Injunction:

Dear Mr. Cushman: In accordance with your telephone conversation of today requesting a copy of the papers in the civil and criminal contempt proceedings in the above identified case, I am sending herewith under separate cover a copy of these papers including the following:

(1) Order to show cause etc.
(2) Motion for Order
(3) Petition and Exhibits referred to therein
(4) Affidavit of Louis C. Smith and Exhibits referred to therein.
(5) Affidavit of Mr. Southworth and exhibits referred to therein.

As stated to you over the telephone, the physical exhibit referred to in the affidavit of Mr. Smith, has, under the order been retained by me subject to inspection of plaintiff or its counsel. I should, of course, be glad to have you inspect the last at such times as convenient to you.

I am delivering the papers to you as returned by Mr. Hodder.

There is also included in the envelope the original letter of May 29th to Mr. Hodder.

Very truly yours,

4/T

ELLIS SPEAR, Jr.

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**EXHIBIT No. 34—SPEAR AFFIDAVIT.**

[On letterhead of Roberts, Cushman & Woodberry.]

Boston July 8, 1929

Ellis Spear, Jr., Esq. Tremont Building Boston, Massachusetts

Dear Sir: *I enclose a copy of my special appearance and motion to dismiss which I am today filing in your Petition for Contempt against the Krentler-Arnold Hinge Last Company. Please take notice that I shall present the Motion to dismiss at the hearing on your Order to show cause on July 24,* 1929.

15

*Error should be 15 as per tel. from Rob. Cushman. 7/8/29 Encs.

I also enclose copies of the following affidavits and the patents referred to therein, which I am not at present filing, but which I shall file only if the Court denies the Motion to Dismiss. I place these in your hands now, both to comply with the order to serve affidavits on you July 8, 1929, and to expedite the case in the event that the Court should decide to go into the merits, so that the whole case may be heard at one time.

Edwin O. Krentler (2 affidavits)
Otto F. Barthel
James R. Hodder
Lewis E. Flanders
Horace G. Seitz
Alfred H. Peterson
Fred Drew

Yours very truly,

RC/EF *Encs.

ROBERT CUSHMAN

**EXHIBIT No. 35—SPEAR AFFIDAVIT.**

July 9, 1929.

Messrs. Roberts, Cushman & Woodberry, 31 Milk Street, Boston, Mass.

Attention of Mr. Robert Cushman:

Re: Belcher *v.* Krentler.

Dear Sirs: We are in receipt of your favor of July 8th with copies of affidavits in the above, which we note that you are not at present filing, but which we expect you to file on Monday before the hearing.

In regard to copy of your special appearance and motion to dismiss, I am obliged to advise you that I shall object to such appearance and motion so filed in view of your general appearance heretofore in the case.

Very truly yours,

1w/

ELLIS SPEAR, Jr.

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**EXHIBIT No. 36—SPEAR AFFIDAVIT.**

July 11, 1929.

Messrs. Roberts, Cushman & Woodberry, 31 Milk Street, Boston, Mass.

Attention of Mr. Cushman:

Re: Krentler *v.* Belcher.

My dear Cushman: You have served me with copies of a special appearance and a motion to dismiss for lack of jurisdiction signed by you as appearing specially as above.

If you really intend to stand on this special appearance and attack the jurisdiction of the Court on Monday, at the time set for hearing the Order to Show Cause, I will be compelled to present motions on behalf of my client as per copies enclosed.

I still hope that you will not find it necessary to burden this matter with efforts to evade jurisdiction or to modify your status as counsel under a general appearance. I am therefore sending copies of the enclosed motions to you but do not expect to file them until four o'clock this afternoon.

If I am mistaken as to your intention as to Monday, I wish you

would advise me immediately as I do not wish to file these motions if they are not necesssary.

Very truly yours,

Lw/

ELLIS SPEAR, Jr.

Copies of Motions enclosed:

(1) Motion to Strike Out Special Appearance.

(2) Motion to Strike Out Respondent's Motion for lack of Jurisdiction

(3) Motion to Strike Out parts of Affidavits and attached exhibits.

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**EXHIBIT No. 37—SPEAR AFFIDAVIT.**

United States of America
The State of Michigan
Department of State

To all to whom these presents shall come:

I John S. Haggerty, Secretary of State of the State of Michigan and Custodian of the Great Seal thereof, Do Hereby Certify that the annexed copy of annual report for the year 1925 of the Krentler-Arnold Hinge Last Company has been compared by me with the record on file in this Department and that the same is a true copy thereof, and the whole of such record.

In Testimony Whereof, I have hereunto set my hand and affixed the Great Seal of the State at the Capitol in the City of Lansing, this Sixth day of July A. D. 1929.

JOHN S. HAGERTY

[SEAL] Secretary of State.

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Take notice

It is required by statute that two originals of this report be forwarded to the Secretary of State. Please note instruction page before proceeding.

MICHIGAN ANNUAL REPORT

To be filed by every corporation for profit, whether domestic or foreign.

(Name of Corporation) Krentler-Arnold Hinge Last Company,
(Postoffice Address) Detroit, Michigan.

(Street and No.) 1009 Majestic Building,

Charles J. DeLand, Secretary of State, Lansing, Michigan.

Sir:—In accordance with Section seven of Act No. 85, Public Acts of 1921, as amended, the undersigned officers of the Krentler-Arnold Hinge Last Company submit the following report of its condition on the 31st day of December, 1924 or (close of fiscal year.)

1. The place or places at which the corporation's business has been engaged during the year is Detroit, Michigan

2. Date of incorporation Dec. 31st, 1907 (Foreign Corporation) Date admitted .

3. The following are the officers and directors of the corporation:

| Names of Officers. | Postoffice Addresses. |
|---|---|
| E. O. Krentler President. | Detroit, Michigan |
| Harry B. Canby Vice-President. | Dayton, Ohio |
| G. A. Krentler Secretary & Treasurer. | Detroit, Michigan |
| W. J. Blakeney Asst. Treasurer. | Dayton, Ohio |

| Names of Directors. | Postoffice Addresses. |
|---|---|
| E. O. Krentler | Detroit Michigan |
| G. A. Krentler | " " |
| Emelia Krentler | " " |
| Harry B. Canby | Dayton, Ohio |
| Fred Drew | Brockton, Mass. |

4. Capital stock:

| | Authorized. | Issued. | Par Value. |
|---|---|---|---|
| Common | $4000 shares | $3060 shares | $100.00 per share |
| Preferred | $ none | $ none | $ none |
| Non par | $ none Shares | $ none Shares | $ none |
| Amount | $400,000.00 | $306,000.00 | $100.00 per share |

5. The amount of capital stock subscribed $306,000.00

6. The amount of capital stock paid in cash: $15,000.00

The amount of capital stock paid in in property: $291,000.00

(Good-will, patents, formulas, etc., or any intangible for which stock has been issued are considered property.)

No par value stock: Market value of none Price fixed by corporation for sale of none

7. The nature and kind of the business in which the corporation has been engaged during the year Selling hinge lasts under Letters Patent

8. The nature, location and value of all property owned by the corporation both in and without Michigan, itemized as follows:

Assets:

| | (A) In Michigan | (B) Without Michigan |
|---|---|---|
| (a) Real estate | | none |
| (b) Goods, chattels, merchandise, material and other property | $36,621.81 | $ none |
| (c) Cash on hand (including deposits in banks | $139,845.58 | $ " |
| (d) Patent-rights, copy-rights, trade-marks and formulas | $156,087.56 | $ " |
| (e) Good-will | $ | $ |
| (g) All other property (specify kinds) | $ | $ |
| (f) Value of credits owing to corporation | $29,212.27 | $ " |
| Deficit (in red) | $ | $ |
| Totals | $361,767.22 | |

9. Liabilities:

| | |
|---|---|
| (a) Common stock outstanding | $306,000.00 |
| Preferred stock outstanding | $ none |
| Non-par stock outstanding | $ " |
| (b) Liability on real estate mortgage | $ " |
| (c) Liability on chattel mortgage | $ " |
| (d) Liability on all other secured indebtednesss | $ " |
| (e) Liability on all unsecured indebtednes | $50,991.82 |
| (f) Other liabilities | $ |
| (g) Surplus | $4,775.40 |
| (Should represent Net Value of property less outstanding indebtedness and paid-up capital) | |
| Total | $361,776.22 |

10. Property exclusively used in interstate commerce. $ none

(This applies to railway equipment, tank cars, steamboats, etc., when so used in interstate commerce.)

Krentler, Arnold Hinge Last Co.

December 31, 1924.

| Assets. | |
|---|---|
| Cash | 139,845.58 |
| Accounts Receivable | 29,004.88 |
| Merchandise | 33,149.94 |
| Securities | 4,000.00 |
| Machinery | 3,077.94 |
| Furniture & Fixtures | 393.93 |
| Patents | 300,000.00 |
| | $509,472.27 |
| **Liabilities.** | |
| Accounts Payable | 50,991.82 |
| Patent Depreciation Reserve | 143,912.44 |
| Reserve for Bad Accounts | 3,792.61 |
| Capital Outstanding | 306,000.00 |
| Surplus | 4,775.40 |
| | $509,472.27 |

Exhibit "A" attached hereto (Balance sheet as of Dec. 31, 1924), or (Close of fiscal year).

The foregoing is a true statement of the condition of the corporation as of Dec. 31, 1924, or (close of fiscal year).

Witness our signatures:

E O KRENTLER President

G A KRENTLER Secretary

State of Michigan

County of Wayne ss

We, E. O. Krentler and G. A. Krentler, do solemnly swear that we are the president and secretary, respectively, of the above

named corporation, and that the matters set forth in the foregoing report are true and correct to the best of our knowledge and belief.

E O Krentler President
G A Krentler Secretary

Subscribed and sworn to before me, this 15th day of July, 1925.

Ethel M Vincent
Notary Public, Wayne County, Mich.
My commission expires Jan 29 1929

[On back:]

Name Krentler-Arnold Hinge Last Company
Street #1009 Majestic Bldg.
City Detroit, Michigan

Annual Report for 1925
(This blank prepared by authority of Charles J. DeLand, Secretary of State.)
Filed 8/27 1925 with Secretary of State
Approved and accepted 1925

---

**EXHIBIT No. 38—SPEAR AFFIDAVIT.**

United States of America
The State of Michigan
Department of State

To All to whom these Presents shall come:

I, John S. Haggerty, Secretary of State of the State of Michigan and Custodian of the Great Seal thereof, Do Hereby Certify that the annexed copy of annual report for the year 1926 of the Krentler-Arnold Hinge Last Company has been compared by me with the record on file in this Department and the same is a true copy thereof, and the whole of such record.

In Testimony Whereof, I have hereunto set my hand and affixed the Great Seal of the State at the Capitol, in the City of Lansing, this sixth day of July A. D. 1929.

[SEAL]

JOHN S. HAGGERTY
Secretary of State.

Take Notice

It is required by statute that two originals of this report be forwarded to the Secretary of State. Please note instruction page before proceeding.

MICHIGAN ANNUAL REPORT

To be filed by every corporation for profit, whether domestic or foreign.

(Name of Corporation) Krentler-Arnold Hinge Last Company
(Postoffice Address) Detroit, Michigan
(Street and No.) 1009 Majestic Building

Charles J. DeLand, Secretary of State, Lansing, Michigan.

Sir:—In accordance with Section seven of Act No. 85, Public Acts of 1921, as amended, the undersigned officers of the Krentler-Arnold Hinge Last Company submit the following report of its condition on the 31st day of December, 1925, or (close of fiscal year).

1. The place or places at which the corporation's business has been engaged during the year is Detroit, Michigan.

2. Where incorporated Michigan Date of incorporation December 31st, 1907 Date admitted

3. The following are the officers and directors of the corporation:

| Names of Officers. | Postoffice Addresses. |
|---|---|
| E. O. Krentler President. | Detroit, Michigan |
| Harry B. Canby Vice-President. | Dayton, Ohio |
| George A. Krentler Secretary & Treas. | Detroit, Michigan. |

| Names of Directors. | Postoffice Addresses. |
|---|---|
| E. O. Krentler | Detroit, Michigan |
| George A. Krentler | " " |
| Emelia Krentler | " " |
| Harry B. Canby | Dayton, Ohio |
| Fred Drew | Brockton, Mass. |

4. Capital stock:

| | Authorized. | Issued. | Par Value. |
|---|---|---|---|
| Common | $ 4000 shares | $ 3060 shares | $100.00 per share |

| | | | |
|---|---|---|---|
| Preferred | $ none | $ none | $ none |
| Non-par | $ none shares | $ none shares | $ none |
| Amount | $400,000.00 | $306,000.00 | $100.00 per share |

5. The amount of capital stock subscribed $306,000.00

6. The amount of capital stock paid in cash: $15,000.00

The amount of capital stock paid in property: $291,000.00

(Good-will, patents, formulas, etc., or any intangible for which stock has been issued are considered property.)

No par value stock: Market value of none Price fixed by corporation for sale of none

7. The nature and kind of the business in which the corporation has been engaged during the year Selling Hinge Lasts under Letters Patent

8. The nature, location and value of all property owned by the corporation both in and without Michigan, itemized as follows:

Assets:

| | (A) In Michigan | (B) Without Michigan |
|---|---|---|
| (a) Real estate | $ none | $ none |
| (b) Goods, chattels, merchandise, material and other tangible property | $ 37,200.57 | $ " |
| (c) Cash on hand (including deposits in banks) | $154,303.31 | $ " |
| (d) Patent-rights, copy-rights, trade-marks and formulas | $137,756.56 | $ |
| (e) Good-will | $ none | $ |
| (f) Value of credits owing to the corporation | $ 24,241.37 | $ |
| (g) All other property (specify kinds) | $ none | $ |
| | $ " | $ |
| | $ " | $ |
| Deficit (in red) | $ 5,528.60 | $ |
| Totals | | $359,030.41 |

(Total of assets and liabilities must balance)

9. Liabilities:

| | |
|---|---|
| (a) Common stock outstanding | $306,000.00 |
| Preferred stock outstanding | $ none |
| Non-par stock outstanding | $ " |
| (b) Liability on real estate mortgage | $ " |
| (c) Liability on chattel mortgage | $ " |
| (d) Liability on all other secured indebtedness | $ " |
| (e) Liability on all unsecured indebtedness | $ 53,030.41 |
| (f) Other liabilities | $ none |
| (g) Surplus | $ none |
| (Should represent Net Value of property less outstanding indebtedness and paid-up capital) | |
| Total | $359,030.41 |

10. Property exclusively used in interstate commerce. $ none

(This applies to railway equipment, tank cars, steamboats, etc., when so used in interstate commerce.)

December 31, 1925.

Balance Sheet Krentler-Arnold Hinge Last Co.

Assets:

| | | |
|---|---|---|
| Cash— | | $154,303.31 |
| Accounts Receivable— | $28,033.98 | |
| Less reserve for bad debts— | 3,792.61 | 24,241.37 |
| Inventory—Finished goods— | | 30,073.44 |
| Investments: | | |
| Obligations of the United States or its possessions— | | 4,000.00 |
| Capital Assets: | | |
| Machinery and equipment— | $2,770.15 | |
| Furniture and fixtures— | 333.35 | |
| Delivery equipment— | 23.63 | 3,127.13 |
| Patents: | | 300,000.00 |
| | | $515,745.25 |

Liabilities:

| | |
|---|---|
| Accounts Payable— | $53,030.41 |
| Reserve for Depreciation on patents— | 162,243.44 |
| Common stock— | 306,000.00 |
| Surplus— | 5,528.60 |
| | $515,745.25 |

Exhibit "A" attached hereto (Balance sheet as of Dec. 31, 1925), or (Close of fiscal year).

The foregoing is a true statement of the condition of the corporation as of Dec. 31, 1925, or (close of fiscal year).

Witness our signatures:

E O KRENTLER President.
G A KRENTLER Secretary.

State of Michigan
County of Wayne ss.

We, E. O. Krentler and George A. Krentler, do solemnly swear that we are the president and secretary, respectively, of the above named corporation, and that the matters set forth in the foregoing report are true and correct to the best of our knowledge and belief.

E O Krentler President.
G A Krentler Secretary.

Subscribed and sworn to before me, this 30th day of August 1926

Ethel M. Vincent
Notary Public, Wayne County, Michigan.
My commission expires Jan 29 1929

[On back:]

Name Krentler-Arnold Hinge Last Company
Street 1009 Majestic Bldg.
City Detroit Michigan
Annual Report for 1926
(This blank prepared by authority of Charles J. DeLand, Secretary of State.)
Filed Sept 3 1926 with Secretary of State
Approved and accepted 1926

**EXHIBIT No. 39—SPEAR AFFIDAVIT.**

United States of America
The State of Michigan
Department of State

To all to whom these presents shall come:

I, John S. Haggerty, Secretary of State of the State of Michigan and Custodian of the Great Seal thereof, Do Hereby Certify that the annexed copy of annual report for the year 1927 of the Krentler-Arnold Hinge Last Company has been compared by me with the record on file in this Department and that the same is a true copy thereof, and the whole of such record.

In Testimony Whereof, I have hereunto set my hand and affixed the Great Seal of the State at the Capitol, in the City of Lansing, this sixth day of July A. D. 1929.

JOHN S. HAGGERTY
Secretary of State.

[SEAL]

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Take notice

It is required by statute that two originals of the report be forwarded to the Secretary of State. Please note instruction page before proceeding.

August 31st is the last day for filing reports without penalty.

MICHIGAN ANNUAL REPORT

To be filed by every corporation for profit, whether domestic or foreign.

(Name of Corporation) Krentler-Arnold Hinge Last Co.
(Postoffice Address) Detroit, Michigan.
(Street and No) 1009 Majestic Bldg.

John S. Haggerty, Secretary of State, Lansing, Michigan.

Sir:—In accordance with the provisions of Act No. 84, Public Acts of 1921, as amended, the undersigned officers of the above named company submit the following report of its condition on the 31st day of December, 1926, or (close of fiscal year) or the date of incorporation during this year:

1. The place or places at which the corporation's business has been engaged during the year is Detroit, Michigan.

2. Where incorporated Michigan Date of incorporation December 31, 1907

Date admitted

3. The following are the officers and directors of the corporation:

| Names of Officers. | Postoffice Addresses. |
|---|---|
| E. O. Krentler President. | Detroit, Michigan. |
| Harry B. Canby Vice-President. | Dayton, Ohio. |
| George A. Krentler Secretary. | Detroit, Michigan. |

| Names of Directors. | Postoffice Addresses. |
|---|---|
| E. O. Krentler | Detroit, Michigan. |
| George A. Krentler | Detroit, Michigan. |
| Emelia Krentler | Detroit, Michigan. |
| Harry B. Canby | Dayton, Ohio. |
| Fred Drew | Brockton, Mass. |

4. Capital stock:

| | Authorized. | Issued. | Stock subscribed but not issued. | Par value per share. |
|---|---|---|---|---|
| Common | $ 4000 shares | $ 3060 shares | $ None | $100.00 |
| Preferred | $ None | | | |
| Amount | $400,000.00 | $306,000.00 | $ None | |
| Non-Par | $ None shares | $ None shares | $ None shares | None |

5. The following is a true statement of the assets and liabilities, showing the condition of the corporation at the date stated, and segregated to show for the purpose of computing this tax, the nature, location and value of all property owned by the corporation both in and without Michigan, itemized as follows:

| Assets | Amount | In Michigan | Without Michigan |
|---|---|---|---|
| 1. Cash | | $152 255 40 | $ None |
| 2. Notes and Accounts receivable | $48 763 20 | | |
| Less reserve for bad debts | 428 20 | 48 335 00 | |

| | | | |
|---|---|---|---|
| 4. Inventories: (To include raw materials, work in process, finished goods, supplies, etc. | | 24 250 66 | |
| 5. Investments | | 4 000 00 | |
| 8. Capital assets: | | | |
| Machinery and equipment | 2 558 96 | | |
| Furniture and fixtures | 301 01 | | |
| Less reserve for depreciation and depletion | | 2 859 97 | |
| 9. Patents (To include copyrights, trade-marks, etc.) | | 125 754 93 | |
| 12. Total Assets | | $357 454 96 | $ None |
| 6. Liabilities: | | | |
| 13. Notes and Accounts payable | | $57 521 84 | |
| 16. Capital Stock: | | | |
| Common stock (less stock in treasury | 306 000 | | |
| Non-par stock (No. of shares | | 306 000 00 | |
| 17. Surplus and undivided profits (Enter deficit in red) | | 6 066 88 | |
| Total Liabilities | | $357 454 96 | None |

7. Property exclusively used in interstate commerce.

(This applies to railway equipment, tank cars, steamboats, etc., when so used in interstate commerce)

8. The amount of capital stock paid in (a) in cash $15,000.00 (b) in property $291,000.00

(Good-will, patents, formulas, etc., or any intangible for which stock has been issued, are considered property.)

No par value stock: Market value per share None Book value None Price fixed by corporation for sale of None.

9. The nature and kind of the business in which the corporation has been engaged during the year Selling hinge lasts under letters patent

The foregoing is a true statement of the condition of the corporation as of Dec. 31, 1926, or (Close of fiscal year) or the date of incorporation during this year.

Note—If this statement is not in accordance with your books and the statement as filed by you with the Federal Government for income tax purposes please submit a statement by way of explanation showing the differences.

Witness our Signatures.

E O KRENTLER President
G A KRENTLER Secretary

State of Michigan
County of Wayne ss.

I, E. O. Krentler, do solemnly swear that I am the president or vice-president, or secretary or assistant secretary, of the above named corporation, and that the matters set forth in the foregoing report are true and correct to the best of my knowledge and belief.

E. O. Krentler

Subscribed and sworn to before me, this 2nd day of August 1927

Louis A Ewald
Notary Public, Wayne County, Michigan.
My commission expires Nov. 11, 1928

[On back:]

Name Krentler-Arnold Hinge Last Co
Street 1009 Majestic Bldg.,
City Detroit, Michigan.
Annual report for 1927
(This blank prepared by authority of John S. Haggerty, Secretary of State.)
Filed Aug. 3 1927 with Secretary of State

**EXHIBIT 40—SPEAR AFFIDAVIT.**

United States of America
The State of Michigan
Department of State

To All to whom these Presents shall come:

I, John S. Haggerty, Secretary of State of the State of Michigan and Custodian of the Great Seal thereof, Do Hereby Certify that the annexed copy of annual report for the year 1928 of the Krentler Arnold Hinge Last Company has been compared by me with the record on file in this department and that the same is a true copy thereof, and the whole of such record.

In testimony whereof, I have hereunto set my hand and affixed the Great Seal of the State at the Capitol, in the City of Lansing, this Sixth day of July A. D. 1929.

JOHN S. HAGGERTY
Secretary of State.

[SEAL]

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Take notice

It is required by statute that two originals of this report be forwarded to the Secretary of State. Please note instruction page before proceeding.

August 31st is the last day for filing reports without penalty.

MICHIGAN ANNUAL REPORT

To be filed by every corporation for profit, whether domestic or foreign.

(Name of Corporation) Krentler Arnold Hinge Last Co.
(Postoffice Address) Detroit, Michigan.
(Street and No.) 1009 Majestic Bldg.

John S. Haggerty, Secretary of State, Lansing, Michigan.

Sir:—In accordance with the provisions of Act No. 84, Public Acts of 1921, as amended, the undersigned officers of the above named company submit the following report of its condition on the 31st day of December, 1927, or (close of fiscal year) or the date of incorporation during this year.

1. The place or places at which the corporation's business has been engaged during the year is Detroit, Michigan.

2. Where incorporated Michigan. Date of incorporation Dec. 31, 1907 Date admitted

3. The following are the officers and directors of the corporation:

| Names of Officers. | Postoffice Addresses. |
|---|---|
| E. O. Krentler President. | Detroit, Michigan. |
| Harry B. Canby Vice-President. | Dayton, Ohio. |
| George A. Krentler Secretary. | Detroit, Michigan. |
| George A. Krentler Treasurer. | " " |

| Names of Directors. | Postoffice Addresses. |
|---|---|
| E. O. Krentler | Detroit, Michigan. |
| George A. Krentler | Detroit, Michigan. |
| Emelia Krentler | Detroit, Michigan. |
| Harry B. Canby | Dayton, Ohio. |
| Fred Drew | Brockton, Mass. |

4. Capital stock:

| | Authorized. | Issued. | Stock subscribed but not issued. | Par value per share. |
|---|---|---|---|---|
| Common | $ 4000 shares | $ 3060 shares | $ none | $100.00 |
| Preferred | $ none . | | | |
| Amount | $ 400,000.00 | $ 306,000.00 | $ none | |
| Non-Par | $ none shares | $ none shares | $ none shares | $ none |

5. The following is a true statement of the assets and liabilities from the books and records of the corporation, showing the condition at the date stated, and segregated to show for the purpose of computing this tax, the nature, location and value of all property owned by the corporation both in and without Michigan, itemized as follows:

| Assets | Amount | In Michigan | Without Michigan |
|---|---|---|---|
| 1. Cash . . . . . | | $135 501 90 | None |
| 2. Notes and Accounts receivable . . . . . | $ | | |
| Less reserve for bad debts | | 39 558 68 | |

| | | | |
|---|---|---|---|
| 4. Inventories: (To include raw materials, work in process, finished goods, supplies, etc.) | | 19 975 17 | |
| 5. Investments | | 10 000 00 | |
| 8. Capital assets: | | | |
| Machinery and equipment | 2 243 82 | | |
| Furniture and fixtures | 285 91 | | |
| Delivery equipment | 78 46 | | |
| Less reserve for depreciation and depletion | $ | 2 608 19 | |
| 9. Patents (To include copyrights, trade-marks, etc.) | | 123 304 40 | |
| 12. Total Assets | | $339 948 34 | $ None |
| 6. Liabilities: | | | |
| 13. Notes and accounts payable | | $46 039 65 | |
| 16. Capital Stock: | | | |
| Common stock (less stock in treasury) | 306 000 00 | | |
| Non-par stock (No. of shares) | | 306 000 00 | |
| 17. Surplus and undivided profits (Enter deficit in red) | | 21 091 31 | |
| Total Liabilities | | $330 948 34 | None |

7. Property exclusively used in interstate commerce. None

8. The amount of capital stock paid in (a) in cash $15,000.00 (b) in property 291,000.00

(Good-will, patents, formulas, etc., or any intangible for which stock has been issued, are considered property.)

No par value stock: Market value per share None Book value None Price fixed by corporation for sale of None

9. The nature and kind of the business in which the corporation has been engaged during the year Selling hinge lasts under letters patent.

The foregoing is a true statement of the condition of the corporation as of Dec. 31, 1927, or (close of fiscal year) or the date of incorporation during this year.

Witness our Signatures. E O KRENTLER President
G A KRENTLER Secretary

State of Michigan.
County of Wayne ss.

I, E. O. Krentler, do solemnly swear that I am the president of the above named corporation, and that the matters set forth in the foregoing report are true and correct to the best of my knowledge and belief.

E. O. Krentler

Subscribed and sworn to before me, this 24th day of August 1928

Ethel M. Vincent
[SEAL] Notary Public, Wayne County, Michigan
My commission expires Jan 29 1929

[On back :]

Name Krentler-Arnold Hinge Last Co.
Street #1009 Majestic Bldg.
City Detroit, Michigan

Annual Report for 1928
(This blank prepared by authority of John S. Haggerty, Secretary of State.)
Filed Sept 8, 1928 with Secretary of State

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AFFIDAVIT OF SERVICE OF ORDER TO SHOW CAUSE AND SUPPORTING PAPERS BY REGISTERED MAIL ON PLAINTIFF-RESPONDENT, KRENTLER-ARNOLD HINGE LAST COMPANY.

[Filed July 15, 1929.]

Eiffel B. Gale, being duly sworn, deposes and says that on June 4, 1929, at about 12.30 P. M., I deposited in the United States mails, at the State House branch, a sealed package addressed to Krentler-Arnold Hinge Last Company, 1009 Majestic Building, Detroit, Michigan.

That the package was sent first-class mail, and the postage was prepaid.

That the package was sent by registered mail return receipt requested, special delivery, and

That the receipt for the package was registration No. 337,902.

That the returned receipt for registered article, No. 337,902, was received by Ellis Spear, Jr., the said receipt acknowledging delivery of the above package by the Krentler-Arnold Hinge Last Company June 6, 1929, said receipt having been signed by A. L. Riegel as agent for the Krentler-Arnold Hinge Last Company.

That the sealed package as deposited in the United States mails at the State House postal sub station contained a letter dated June 4, 1929, to the Krentler-Arnold Hinge Last Company by Ellis Spear, Jr., informing the Krentler-Arnold Hinge Last Company of the contents of the package.

That said package contained a copy of the following papers:

(1) Order to show cause why plaintiff, Krentler-Arnold Hinge Last Company should not be held in civil and criminal contempt and an attachment issued for violation of permanent injunction, issued the fourth day of June, 1929 by James A. Lowell, United States District Judge.

(2) Motion for the above order to show cause.

(3) Petition in support of the motion for the order to show cause, together with copies of the paper exhibits referred to therein.

(4) Copy of the affidavit of Louis C. Smith, together with the paper exhibits referred to therein.

(5) Copy of the affidavit of Ernest B. Southworth together with copies of the paper exhibits referred therein.

EIFFEL B. GALE.

Subscribed and sworn to before me this twenty-fifth day of June, 1929.

VICTORIA LOWDEN,

[SEAL] *Notary Public.*

AFFIDAVIT OF PERSONAL SERVICE OF ORDER TO SHOW CAUSE AND SUPPORTING PAPERS AS PROVIDED IN THE COURT ORDER UPON JAMES R. HODDER, COUNSEL OF RECORD FOR PLAINTIFF-RESPONDENT, KRENTLER-ARNOLD HINGE LAST COMPANY.

[Filed July 15, 1929.]

Eiffel B. Gale, duly sworn, states as follows:

That on Tuesday, June 4, 1929, in the forenoon, he delivered to James R. Hodder, as counsel of record for the Krentler-Arnold Hinge Last Company, having an office at Room 505 Tremont Building, a copy of the order to show cause why the plaintiff, Krentler-Arnold Hinge Last Company, should not be held in civil and criminal contempt, made by James A. Lowell, United States District Judge, on June 4th, together with a copy of the motion, petition, and the supporting affidavits of Louis C. Smith and Ernest B. Southworth; a copy of the above papers were deposited in an unsealed envelope, together with a letter from Ellis Spear, Jr., the package being addressed to James R. Hodder, 505 Tremont Building, Boston, Massachusetts, with the name and address of Ellis Spear, Jr., as the sender of the package also appearing on the face of the package;

That when the package containing a copy of the above papers was delivered to Mr. Hodder by me, I informed him that the copy was being delivered to him in accordance with the order of the court, as counsel of record for the Krentler-Arnold Hinge Last Company, and I also informed Mr. Hodder of the nature of the papers, that is, that there was included a copy of the order to show cause, together with the supporting petition and affidavits, in a contempt proceedings against the Krentler-Arnold Hinge Last Company, for violation of the injunction previously issued;

That Mr. Hodder objected to the service of the papers upon him, he stating in effect that the original case had been closed and that he therefore was not authorized to accept service of the papers;

That in response to this contention of Mr. Hodder I asked him

whether or not he had ever filed a notice of withdrawal in the original suit, and he admitted that he had not filed any notice of withdrawal as attorney of record for the Krentler-Arnold Hinge Last Company in that case;

That I indicated to Mr. Hodder that Mr. Spear would contend that in the original case the plaintiff was still subject to the injunction even though the final decree had been entered;

That I further indicated to Mr. Hodder that I was merely complying with the order made by Judge James A. Lowell, in leaving the papers with him, and that the relative merits of the service could be presented to the court upon the return day, and there considered and settled by the court.

EIFFEL B. GALE.

Subscribed and sworn to before me this twenty-fifth day of June, 1929. VICTORIA LOWDEN,

[SEAL] *Notary Public.*

---

AFFIDAVIT OF IRVING H. COWDREY.

[Filed July 15, 1929.]

COMMONWEALTH OF MASSACHUSETTS,

COUNTY OF SUFFOLK, ss.

Irving H. Cowdrey, being duly sworn, deposes and says:

That he is engaged as associate professor by the Massachusetts Institute of Technology and that he has direct supervision over the testing materials laboratories and gives instruction in courses pertaining to the mechanical arts including materials of engineering and testing materials;

That a two-part shoe last was delivered to him with the request that the member connecting the two parts be tested to determine its properties, and particularly its resilient characteristics. The last delivered to him had the following thereon: "McNichol & Taylor, Lynn—5530-43." That in order to identify this last he wrote his name "Irving H. Cowdrey" thereon. These tests were conducted for the George E. Belcher Company;

That he tested the connecting member and found it to be longi-

tudinally resilient between the points of connection in the last parts. Mr. Louis C. Smith witnessed these tests.

After making the test, I prepared a report and plotted curves from the data obtained by the tests. These tests also definitely show that the connecting member has a very definite set of permanent deformation which increases with the load applied. The maximum load applied was 3,000 pounds.

The tests established that the connecting member was longitudinally resilient throughout this loading range, notwithstanding the fact that the member also took a definite set or deformation which varied approximately with the load.

That there is attached hereto and made a part hereof a copy of the report and load elongation plots prepared after the tests.

IRVING H. COWDREY.

Subscribed and sworn to before me this fifteenth day of July, 1929.

WILLIAM JACKSON,
*Notary Public.*

[SEAL]

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REPORT OF STUDY OF RESILIENT LINK FOR SHOE LASTS

Made for George E. Belcher Last Co.
By Irving H. Cowdrey

April 30, 1929.

IRVING H. COWDREY
822 CHARLES RIVER ROAD
CAMBRIDGE, MASS.

## REPORT OF STUDY OF RESILIENT LINK FOR SHOE LASTS

Investigation made by Irving H. Cowdrey at the Testing Materials Laboratories of the Massachusetts Institute of Technology, Cambridge, Mass., for the George E. Belcher Last Co. in accordance with the request of Ellis Spear.

---

On March 7, 1929 the writer received from Mr. Biffel E. Cole a wooden shoe last bearing the various designations - Mitchel and Taylor, Lynn - 9530 - 4B. This has been marked by the signature [illegible]. From this last the 'resilient link' was removed and tested in tension to determine the change in the length L (Fig. 1b) under various axial loads. Observations were also made to determine whether or not the link showed appreciable permanent deformation upon the removal of load. The axial loads were applied by pinning the link in the slotted bars as shown in Fig. 1a. These bars were one inch square and were gripped in the jaws of a standard Riehle Testing Machine of 50,000 pounds capacity. Recent verification previous to the test has shown this machine to be

Fig. 1a

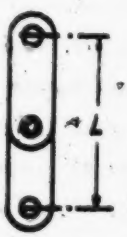
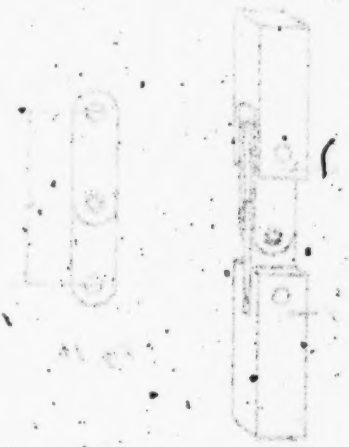



Fig. 1b.



accurate to within 0.5%. The deformation of the link was determined by noting the change of distance between the points x and y on the holders. The deformation of the holders during the test was too nearly infinitesimal to introduce any measurable error in the observations. The extensometer used to measure the deformation of the member denotes a change in length of 0.0005" and is accurate to within that quantity.

The total deformation of the resilient link is shown graphically in the accompanying blue print. After loading to 800 - 1,100 - 2,000 and 3,000 pounds respectively the load on the link was reduced to 100 pounds and the permanent set noted. These sets have been plotted on the same graph and produce the dash line. The horizontal distance between the "set line" and "total elongation line" represents the "resilient" deformation of the link at the corresponding load.

It will be noted that after each load removal, (for example at 800 pounds) the reapplication of the previous load (800) produced an elongation larger than that produced by the initial application of that load (800). This results in a series of jogs in the graph. It seems to the writer that this action is due to the working of the spring in the link parts.

The amount of resilience in the link necessary for the hinge action of the last was determined as follows. The parts of the last were moved to the position where the pins passing through the eyes of the link were at their maximum distance one from the other. A line joining their centers was scratched with a needle point across each pin end. A fine center punch mark was made on

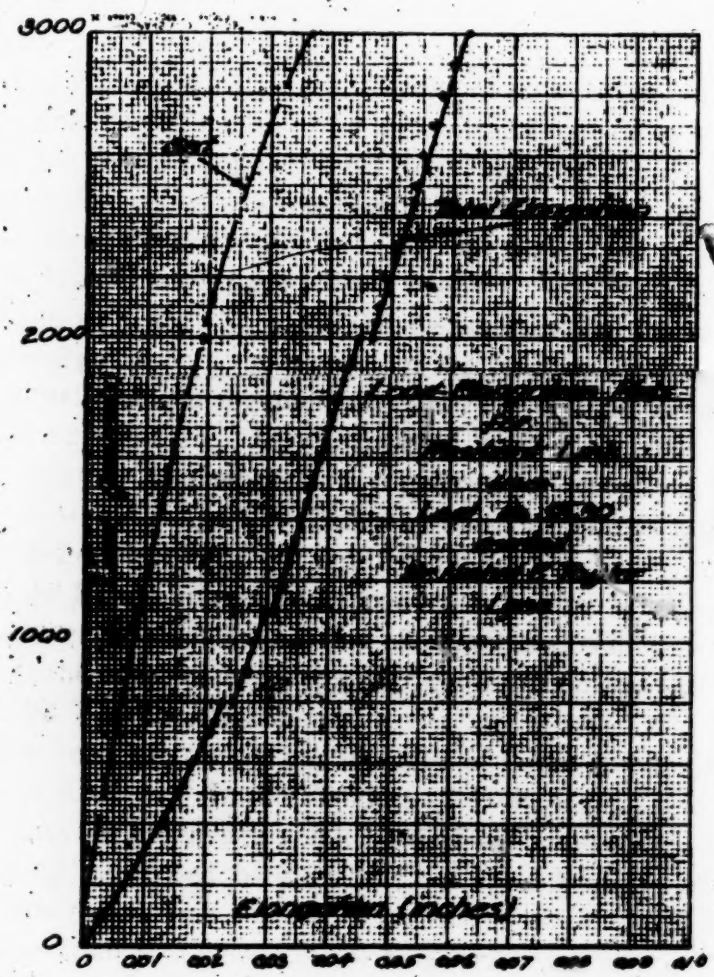
this line at the center of one pin. Fine pointed dividers with one point in this punch mark were then used to scribe the other pin. With the last in the collapsed position a second scratch was made with the same divider setting. These scratches appeared as in Fig. 2. The distance on the vertical line between the two lines intersecting it is an indication of the change in length of the resilient link during the hinge action of the last. This distance was measured while being observed under a microscope and found to be 0.023". This elongation is equivalent to that produced by an axial load of approximately 1,100 pounds on the link in the test first described.

Fig. 2

Respectfully submitted,

Irving H. Cowdrey.

Cambridge, Mass.,
April 30, 1929.


3000
2000
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## REPLY AFFIDAVIT OF LOUIS C. SMITH IN PROCEEDINGS IN CONTEMPT.

[Filed July 15, 1929.]

Louis C. Smith, being duly sworn, deposes and says as follows:

I am the same Louis C. Smith who heretofore testified as an expert in the original proceedings in this case and I have made an affidavit in the present proceedings therein.

I am familiar with the plaintiff-respondent's patent No. 1,459,061, of June 19, 1923, under which plaintiff purported to manufacture the device heretofore held to infringe and which was enjoined by the court. In this patent Walter A. Krentler as applicant carefully distinguished between "the hinge type of last and the link type of last", page 1, lines 24–41.

In Krentler patent No. 1,459,061 he asserted that he was using a combination of both types and that the fore-part and heel part were actually hinged together by a pin 21 as well as being linked together by a link 15. As was pointed out to the court on the record, bottom of page 246 of transcript of record on appeal, Krentler-Arnold Hinge Last Company did not make its infringing last hinged on the pin 21. It omitted the knuckle on the heel portion of the last as appears in Respondent's Exhibit No. 1, referred to in answering affidavits on this contempt proceeding, which is a copy of the drawing prepared under my direction and introduced as Exhibit T on the original trial.

I have read the answering affidavits of Lewis E. Flanders and Edwin O. Krentler. In the Flanders affidavit, pages 3 and 4, also in the Krentler affidavit, page 4, I noted the contention that the coil spring interposed between the two rigid limbs of plaintiff-respondents' new link alleged to be in contempt is different in operation from that shown in the Peterson patent in that the coil flat spring in the Krentler sliding link is first contracted and then expended, whereas the Peterson link illustrated in the patent is first expended and then contracted in moving the last parts from one extreme position to the other.

I have heretofore pointed out that claims 2, 4, 6 and 7 of the

Peterson patent are in nowise limited to the particular type or shape or form of the connecting spring link used. The only limitation is that the connecting link be pinned as set forth in the claims and also be resilient. However, I believe that the statement in the above affidavit is misleading at least. The new link of plaintiff-respondent when fairly analyzed will be seen to consist of two members or limbs 5 and 6 (see Respondent's Exhibit in Flanders affidavit drawing in Krentler's application for patent) which are rigid, and a resilient portion which consists of an arched or coiled spring 7 (see same drawing—exhibit Flanders affidavit) which yields under pressure permitting the separation of the two rigid limbs 5 and 6. This is merely, therefore, an elaboration or complication of the more simple integral link of the Peterson patent in which the two end limbs were connected by the resilient arch. The only other difference is that in the present Krentler structure the limbs are straightened out and brought into alignment.

As the affidavits now submitted on behalf of plaintiff-respondent admit the structure originally discussed in my first affidavit, it is not necessary for me again to apply the claims to that structure. I may merely say that my statement that plaintiff-respondent's new link alleged to be a violation of injunction is admitted to be a "longitudinally resilient connecting member" (see Peterson patent—claims 2, 4, 6 and 7). This admission appears in the affidavit of both Mr. Otto Barthel and Mr. Alfred H. Peterson. This is referred to by Mr. Peterson, affiant on behalf of Krentler and the actual manufacturer of the springs used by Krentler, as follows:

> "The extension of the link in passing over the axis of revolution of the parts of the last." (Page 3 of Alfred H. Peterson's affidavit.)

Mr. Peterson also admits the longitudinally resilient property, function or characteristic of the Krentler so-called sliding connecting link as a unit when he refers to the link as having:

> "Sufficient resiliency to allow the link to be extended in its

movement over the center of the axis of revolution of the heel and fore-parts of the last." (See page 3 of affidavit of Alfred H. Peterson.)

This accords exactly with function and operation of the resilient connecting link of the Peterson patent.

I understand that this Mr. Alfred H. Peterson is a spring manufacturer and that the tests made on the link as a whole showed exactly that longitudinal extensibility which I described in this link in my previous affidavit and which is so clearly defined by the terms of the claims.

I also note in this affidavit of Mr. Alfred H. Peterson and others that the new Krentler link stood stretching tests up to three thousand pounds and "neither broke or lost any resiliency in any degree". This is not in accordance with the tests observed by me and conducted by Professor Cowdry at the Massachusetts Institute of Technology which he made on one of plaintiff-respondent's lasts bearing the mark of "McNichol & Taylor 5530–4B" last makers of Lynn, Massachusetts and licensee of plaintiff-respondent and referred to in the affidavit of Mr. Southworth. Still this affidavit of Mr. Alfred H. Peterson does confirm my contention as to the stretch or resilient extensibility of the new Krentler link. In the test observed by me, made by Professor Cowdry, the Krentler link took on a permanent set of five thousandths of an inch at 900 pounds load elongation, and at three thousand pounds took a deformation set of thirty-five thousands of an inch which changed the action of the last from one of extreme stiffness of movement which made it extremely difficult to operate by hand to one in which it would be very easily moved back and forth by hand. I submit the McNichol & Taylor last so tested which I identify as Defendant's Exhibit 5, Smith reply affidavit.

I also append hereto a photostat copy of Professor Cowdry's report of the test observed by me and above referred to. This report sets forth correctly the results of the test as observed by me.

LOUIS C. SMITH.

Subscribed and sworn to before me this thirteenth day of July, 1929.

THOMAS J. DRUMMOND,
*Notary Public.*

[SEAL]

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[MEMORANDUM. Exhibit, report and load elongation plots, attached to the reply affidavit is here omitted as it is identical with one attached to the affidavit of Irving H. Cowdrey. JAMES S. ALLEN, *Clerk.*

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Also on said fifteenth day of July, A. D. 1929, said cause was set down for hearing on the motion to dismiss, the Honorable James A. Lowell, District Judge, sitting, and it was ordered that said motion be overruled.

Also on said day, said cause was set down for hearing on the petition for contempt and heard in part by the court.

At the same term, to wit, August 6, 1929, the following Affidavits were filed:

AFFIDAVIT OF LEWIS E. FLANDERS.

[Filed August 6, 1929.]

STATE OF MICHIGAN,
COUNTY OF WAYNE, SS.

Lewis E. Flanders, being duly sworn, deposes and says:

In mid summer of 1927 Mr. E. O. Krentler first consulted your deponent concerning the particular sliding-link hinge construction in question herein, and as to whether or not such construction would come within the decree of this Honorable Court in this suit, this first consultation being months prior to the time of consultation as contended by Mr. Spear, and many months prior to the receipt of the petitioner's infringement notice in February, 1929.

At such first consultation in 1927 your deponent considered the decree, the Peterson patent, and the new structure which is now claimed to be in violation of the injunction, and concluded that this new structure was not an arrangement of links and spring within the scope of the Peterson patent as set forth in said decree, and at that time so advised Mr. Krentler.

LEWIS E. FLANDERS.

Subscribed and sworn to before me this twenty-sixth day of July, 1929.

ANNA M. DORR,
*Notary Public, Wayne County, Michigan.*

[SEAL]

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AFFIDAVIT OF EDWIN O. KRENTLER ON BEHALF OF KRENTLER-ARNOLD HINGE LAST COMPANY ON SHOW CAUSE ORDER FOR CONTEMPT.

[Filed August 6, 1929.]

STATE OF MICHIGAN,
COUNTY OF WAYNE, SS.

Edwin O. Krentler, being duly sworn, deposes and says:

I am president of the Krentler-Arnold Hinge Last Company, the plaintiff herein.

By letter dated March 11, 1929, Fred Drew of Brockton, Massachusetts, and president and treasurer of Brockton Last Company of that city, resigned from the office of director of the Krentler-Arnold Hinge Last Company.

On March 16, 1929, at a meeting of the directors of the Krentler-Arnold Hinge Last Company at the company's office at Detroit, they, the said directors, accepted the resignation of Fred Drew.

EDWIN O. KRENTLER, *President.*

Subscribed and sworn to before me this first day of August, 1929.

ANNA M. DORR,
*Notary Public, Wayne County, Michigan.*

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EXTRACT FROM HEARINGS.

At one of the hearings on the petition for contempt there was a discussion of the general proceeding and the proper practice to be followed. Counsel for plaintiff-respondent urged that the new questions of infringement could not be properly determined in proceedings of a peremptory nature, such as contempt proceedings, but should more properly be considered by a new suit for infringement. At that time the following colloquy occurred:

"The COURT. Let me ask you this, Mr. Cushman: You would say that there is no jurisdiction in this case for a supplementary bill, wouldn't you?

Mr. CUSHMAN. I should think so.

The COURT. What?

Mr. CUSHMAN. I should think that that was true.

The COURT. I will give you your choice, Mr. Cushman. You may either have this thing tried out on a supplementary bill and not take any exception to the jurisdiction, or you may let me decide it now.

Mr. CUSHMAN. Do you want your answer now, your Honor?

The COURT. Well, before I decide it. I would rather decide it in a case which allowed expert testimony. But I have already saved your exception to the fact that I have no jurisdiction in contempt. You will take that up. That is all right. But I do not care to have another one taken up on the question of whether I have jurisdiction on the supplementary bill. So this is the sporting proposition I make to you. If Mr. Spear files a supplementary bill we will thresh it out with expert evidence and I will decide one way or the other. I might possibly decide your way. That is for you to consider. Only, that my proposition is that you take no exception to my jurisdiction on that supplementary bill. You have already got your exception to my jurisdiction now. If you don't do that I am going to decide against you on this. There is the sporting proposition.

Mr. CUSHMAN. That is a sporting proposition, your Honor. May I confer with my client?

The COURT. You may, sir. I will give you one week for the answer.

Now, I am pretty sure in my own mind that this is a mere fake to get around the Peterson patent; but your argument is strong, and I should rather decide it on expert evidence. But I am not going to unless you accept my proposition. And your part is to come down here and after expert evidence and hearing what your experts have to say, I may agree with you that the Bronson hinge prevents the Peterson patent from covering that hinge. I do not think that it does now, but I might change my mind. All right."

At a later hearing the court put the following question to counsel for plaintiff-respondent:

"Mr. Spear has given me a memorandum, which I just glanced at only, saying that in this kind of contempt proceedings you may have experts. How about that, Mr. Cushman? Do you agree to that?

Mr. CUSHMAN. I do not know whether that is so or not. I suppose the court has a very wide discretion in the matter of trying a contempt case. I should hold to that because I think if we are going to have what is virtually a new trial, or a new infringement suit, it ought not to be under the guise of contempt. I have always thought this case belonged on that side as a new infringement. It raises new issues which ought to be tried out, and that I have thought from the start."

The court further asked counsel for plaintiff-respondent whether he wished to put in expert evidence in the present situation or preferred to take the court's decision on it and go to the Court of Appeals. Counsel for plaintiff-respondent replied that he preferred to proceed on the present contempt record if we proceed on the contempt order.

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At a later hearing counsel for plaintiff-respondent elected to proceed on the present contempt proceedings.

On the ninth day of said August, said cause was again set down for hearing on the petition for contempt, and after due consideration thereon had, to wit, September 9, 1929, a memorandum of decision was announced.

This cause was thence continued to the September Term, A. D. 1929 when, to wit, September 23, the following order was entered:

ORDER IN CIVIL AND CRIMINAL CONTEMPT PROCEEDINGS

September 23, 1929.

This cause came on to be heard before me at a stated term of this court, upon the petition of the defendant counter-claimants George E. Belcher Company and J. Howard Leman, administrator C. T. A. of the estate of George E. Belcher, deceased, for an order requiring the Krentler-Arnold Hinge Last Company to show cause why they should not be held guilty of civil and criminal contempt for deliberate violation of a permanent injunction of

this court issued November 26, 1926, restraining the Krentler-Arnold Hinge Last Company, its officers, directors, agents or employees from infringing Peterson patent No. 1,195,266, the violation complained of being a longitudinally resilient link known as a sliding link; and upon said petition and supporting affidavits and exhibits referred to therein, and upon the answering affidavits and reply affidavits, and upon argument of counsel; and thereupon upon consideration thereof it is ordered and adjudged,

That the Krentler-Arnold Hinge Last Company are guilty of civil contempt of court for deliberate violation of the injunction heretofore issued by making, using and selling a longitudinally resilient link known as a sliding link;

That the counter-claimants are entitled as remedial relief upon the civil aspect of these contempt proceedings to an award of the profits made by the Krentler-Arnold Hinge Last Company by reason of the acts found to be in violation of the injunction;

That counter-claimants are further entitled to a sum to be paid by the Krentler-Arnold Hinge Last Company to petitioners, sufficient to compensate them for their expenses in these contempt proceedings including the usual costs, and in addition thereto the expenses incurred in preparation and prosecution of these contempt proceedings including counsel fee of petitioners;

That reference be made to Arthur P. Hardy as master, who previously served on the previous accounting, for the purpose of taking an account of the profits made by the Krentler-Arnold Hinge Last Company, and also for ascertaining the costs and expenses, including counsel fees, which have been incurred by petitioners in preparing and prosecuting these contempt proceedings; the fees of the master in these proceedings are to be ascertained on the basis of $50 per diem, and said fees are to be paid by the Krentler-Arnold Hinge Last Company upon request from the master.

JAMES A. LOWELL,
*Judge of United States District Court.*

This cause was thence continued from term to term to the March Term, A. D. 1930, when, to wit, June 7, 1930, the following Master's Report was filed:

MASTER'S REPORT.

June 7, 1930.

This cause was referred to me by order dated September 23, 1929.

For convenience the parties will be referred to hereinafter as the Krentler Company and the Belcher Company.

Although the history of this litigation is doubtless familiar to the court it may not be inappropriate to make a brief statement concerning it.

The Krentler Company brought suit in September, 1923 against Mr. Belcher, who afterwards was succeeded as a party by the Belcher Company.

The Belcher Company then brought a counter-claim against the Krentler Company.

The ultimate decision of this original litigation was in favor of the Belcher Company and against the Krentler Company.

The matter was then referred to the present master to report as to profits made by the Krentler Company as the result of its infringement of the Belcher Company's patent and to report what damages, if any, had been sustained by the Belcher Company.

The master's report was filed on December 14, 1927 and two months later, on February 14, 1928, an opinion was rendered by the court in connection with the matters comprehended by the master's report. Subsequently a decree was entered in accordance with the court's opinion.

In May or June, 1929, the Belcher Company filed a petition to have the Krentler Company adjudged in contempt for the latter's alleged failure to comply with the terms of the injunction issued in the original litigation.

The order of the court dated September 23, 1929, specifically finds that the Krentler Company is

> "guilty of civil contempt of court for deliberate violation of the injunction heretofore issued."

The same order again referred the matter to me

> " for the purpose of taking an account of the profits made by the Krentler-Arnold Hinge Last Company, and also for ascertaining the costs and expenses, including counsel fees, which have been incurred by petitioners in preparing and prosecuting these contempt proceedings."

On October 15, 1929, the master, in accordance with the provisions of the equity rule, issued an order to the Krentler Company to make and file with the master on or before October 28, 1929, a sworn statement of account.

The offices of the Krentler Company are located in Detroit where all of its books of account are kept, and at the request of counsel for both parties, the time for filing the account was extended.

The account was prepared on or about November 4, 1929, and was submitted by counsel for the Krentler Company to counsel for the Belcher Company.

The Belcher Company on December 16, 1929 submitted to the Krentler Company certain objections to the account. To this the Krentler Company replied making certain changes in the account and the Belcher Company after consideration of such changes submitted to the Krentler Company in February, 1930 its comments and objections to the account as amended.

Through the courtesy and cooperation of counsel the parties made certain written stipulations to the effect that the Krentler-Arnold Hinge Last Company need not take any testimony in support and confirmation of its account filed but that the sworn statement of account filed should constitute and be accepted as evidence of its contents; that if the respondent called its witnesses to testify, their testimony would establish certain statements as set forth in the written stipulations.

The Belcher Company introduced no evidence to contradict the statements which it had been stipulated the witnesses of the Krentler Company would testify to if called in person.

The Krentler Company has at all times objected to the order

of the court dated September 23, 1929, to which reference is above made, and on October 15, 1929 filed with the master the following memorandum:

> "Please note my objection to the order on the ground that the Court and the Master have no jurisdiction over the respondent, Krentler-Arnold Hinge Last Company."

The proceedings before the master and the stipulations of the parties have proceeded and been entered into without any waiver on the part of the Krentler Company of its said objection and with the understanding that such objection has been at all times and still is relied and insisted upon by the Krentler Company.

There are but two issues between the parties and both of these are narrow ones, viz:

(1) Whether or not the Krentler Company should be allowed as a credit a part, based upon a fixed percentage basis, of the expense of conducting business although such expense would have been incurred by the Krentler Company even if it had not dealt in the infringing device, and

(2) The amount of the costs and expenses, including counsel fees, incurred by the petitioners in preparing and prosecuting these contempt proceedings.

The Krentler Company admits that its total receipts from dealing in the device which the court has found to be an infringement of the Belcher patent amount to $126,848.24 and this figure is accepted by the Belcher Company.

From this amount the Krentler Company seeks to deduct the sum of $87,273.04 which it claims is made up as follows:

Certain expenses for advertising and credit allowance to a customer amounting to $1,362.50 which it claims and the Belcher Company admits are in full chargeable to the business of dealing in the infringing device.

The remaining $85,910.54 is made up of a variety of items, $33,420.07 of which are apportioned upon a fixed percentage basis which represents the ratio which the infringing business done by the Krentler Company bears to the total expense of all business done by it.

The difference between the $85,910.54 and the $33,420.07, which amounts to $52,490.47, is made up of items which are not apportioned and to which no objection is made by the Belcher Company.

Some of these items on the apportionment basis amounting to $632.06 for freight, shipping boxes, depreciation of machinery and insurance, are admitted by the Belcher Company.

The apportionment of the remainder of these items amounting to $32,788.01 is objected to by the Belcher Company for the following reasons:

(1) The apportionment of the credit which the Krentler Company requests for salaries includes a part of the salary of E. O. Krentler which the Belcher Company claims should be entirely eliminated.

(2) None of the apportionment can be traced to the infringing business as an extra expense wholly incident to the infringing business.

The Krentler Company admits the receipt of profits amounting to $39,575.20. The Belcher Company claims that this should be increased by the sum of $32,788.01 and that the master should report that the profits made by the Krentler Company amount to $72,363.21.

The expenses apportioned in the account submitted by the Krentler Company represent a part of the expense of doing business for the years 1927, 1928 and 1929.

The total expense of doing all of the business of the Krentler Company during these three years as reckoned by the Krentler Company is $87,273.04.

The apportionment claimed by the Krentler Company is based on 11.84 percent of the expense for 1927, 41.72 percent for the year 1928 and 52.27 percent for the year 1929.

The Belcher Company does not dispute the percentage basis adopted. Neither does it object to an apportionment based on such percentages for that part of the expense represented by charges for insurance, freight, shipping boxes and depreciation of machinery amounting to $632.06 nor to the whole charge of

$1,362.50, to both of which items reference has hereinbefore been made.

The Belcher Company does, however, object to any allowance either under an apportionment or otherwise for charges made for salaries, rent, taxes paid to the city of Detroit, State and county taxes, the Michigan privilege tax, miscellaneous expenses, salesmen's traveling expenses, insurance or depreciation on office furniture.

The total of such charges for the three years mentioned is $78,452.16 and the apportionment claimed by the Krentler Company based on the percentages hereinbefore described is $32,799.77. The Belcher Company claims that no part of this $32,799.77 can or should be allowed and contends that this sum should be added to the admitted profits of $39,575.20.

The ground of the Belcher Company's objection is that the evidence as set forth in the stipulations, to which reference has been made, fails to disclose that any part of these charges for general expenses was incurred by reason of the dealings by the Krentler Company in the infringing device, or, to put it somewhat differently, the Belcher Company claims that the evidence as set forth in the stipulations discloses that all of the $78,452.16 charged up as general expenses for these three years, under the items to which objection is made, would have been spent by the Krentler Company even if there had been no dealings by the latter in the infringing article.

In addition to this, the Belcher Company contends that the court's finding on the master's report in the original litigation establishes the law of the case.

The opinion of the court reads as follows:

"It (the Krentler Company) excepted to the master's refusal to allow certain overhead expenses to be deducted from the profits which the master found to be the result of sales of infringing devices. On this point the master correctly ruled that the burden was on the Krentler Company to prove that these expenses were made necessary by the extra cost of

producing the infringing devices, or at least to show specifically what portion of them was due to the infringement.

"The master held that this burden had not been sustained and on this point also I agree with him."

I cannot agree with the Belcher Company's contention that this establishes the law of the case. The court's decision related only to the facts reported with respect to the ascertainment of profits then under consideration.

The master's report explicitly recited that

"At none of the several hearings before the master did the Krentler Company introduce any evidence, other than the account, which could serve as the foundation for any finding, either that the expense of conducting business by the Krentler Company was increased by reason of the sale of the infringing articles, or as a basis for a finding that any of the items in supporting schedule 'I' were actually paid.

"The Krentler Company declined to introduce any evidence in support of those items in the account to which objection was made by the Belcher Company."

The decision and ruling of the master, and I assume that the decision of the court was based on the fact that there was no evidence which would enable the master satisfactorily to apportion the interest between the several kinds of business.

In connection with the issue now under consideration, I find in accordance with the stipulations filed by counsel and in substantially the terms used by them (the statements in parentheses being interpolated by the master):

(1) That the payment of the expenses (including those to which objection is made) was not incurred in connection with any other transactions or other business or source of profit than that disclosed in the account as filed.

(2) That the sliding link hinge business (the infringing device) was offered to the trade along with other hinges of the Krentler Company and the entire business was conducted under an overhead expense that was unchanged from that which previously

was required before the sliding link hinge business was entered into.

(3) That the salaries (which were enumerated and specified) are all the salaries paid to the employees of the company, and the said salaries were all paid in connection with the business disclosed and in connection with no other business, transactions or other source of profits than that disclosed, and that such salaries have been paid.

(4) That the rent paid by the company is $2,364 per annum, of which $1,176 is for office rent and $1,188 is for the rent of the warehouse; the same office and warehouse have been rented for more than five years.

Neither the warehouse nor the office is used for any other business or source of profit than that disclosed in the statement of account. Both the office and warehouse are necessary premises for the conduct of the Krentler Company's business.

(5) That the taxes are the ordinary municipal taxes except the item marked "Michigan Privilege Taxes", which is the corporation tax paid to the State of Michigan on the capital stock of the Krentler Company for the privilege of carrying on business as an incorporated company.

(6) The item of miscellaneous expenses in the account as originally submitted contained two items, both of which are wholly chargeable to the expense attendant upon dealings in connection with the infringing device. These two items will be hereinafter dealt with. After deducting these two items, the total charge for miscellaneous expenses of the entire business for the three years under consideration amounted to $1,961.77 and the amount apportioned on the basis of the percentages hereinbefore described is $711.96.

There was nothing in the stipulations and no evidence was introduced concerning the items which went into this general classification of "miscellaneous expenses".

I infer that these are made up of a considerable number and variety of relatively small items and as no specific objection was raised by the Belcher Company to this particular charge, it will

be dealt with on the same basis as hereinafter set forth respecting the other items in the account which were apportioned and to which objection was made.

(7) Traveling expenses—salesmen. The traveling expenses were the necessary traveling expenses for salesmen employed by the Krentler Company and were expended in the interests of the company in connection with all of its products.

During 1927 and 1928, owing to the introduction of the sliding link hinge business, the salesmen expended some more money in traveling expenses than would otherwise have been required without introducing this new business. The traveling salesmen employed their time and efforts to the entire business of the company with respect to all the lines handled by the Krentler Company.

(8) Insurance. The apportioned charge for insurance is for fire insurance on the contents of the warehouse, protecting as well the sliding link hinges stored there as the other products of the company.

The objection originally made by the Belcher Company to that portion of this charge which was allocated to the infringing business on the basis of the percentages hereinbefore described, and which amounted to $11.76 for the three years, was waived by the Belcher Company.

(9) Depreciation on office furniture. The entire charge for the three years, apportioned as hereinbefore described, amounts to $11.52. The Belcher Company made no specific objection to this charge and I infer that the office furniture was used in connection with the carrying on of the infringing business as well as in connection with the non-infringing business of the Krentler Company. This item will be hereinafter dealt with on the same basis as the other items and concerning which the Belcher Company has filed objections.

(10) The Krentler Company's customers, disclosed in Schedule B of the statement of account filed by the Krentler Company, were all customers of that company before the introduction of the sliding link hinge (the infringing device).

The orders received from these customers were for shoe last hinges to meet their requirements for shoe lasts manufactured by the said customers for and according to the demand for lasts from them by the shoe manufacturers. The said customers in said Schedule B were purchasers of B. B. hinges (a device concerning which no question of infringement has been raised in these proceedings) before the sliding link hinge was offered by the Krentler Company to the trade for use in the same types of lasts as those in which the sliding link hinge was later used.

After the Krentler Company ceased the sale of its sliding link hinge, its customers who had been purchasing sliding link hinges purchased instead thereof the B. B. hinges sold by the Krentler Company for lasts to meet the same requirements of shoe manufacturers in which they had previously used sliding link hinges.

I am of the opinion and find that the situation which resulted from the facts set forth in these findings, which are based on the stipulations to which reference has been made, is quite different from that which obtained at the time of the first accounting between the parties and which was the subject matter of the master's former report.

In the first instance, no evidence whatever was introduced by the Krentler Company in support of the various charges appearing in its account and the master was unable to make any findings of fact either as to the proportion that the infringing business bore to the entire business of the Krentler Company or that any expenses were either directly or indirectly attributable to the infringing business.

In the instant case, the evidence discloses and I find the proportion which the infringing business bore to the entire business of the Krentler Company.

In addition to this, there are a few of the charges which can be definitely attributed to the infringing business.

I find that the Krentler Company's charge of $399.24 in 1927, $1,840.39 in 1928 and $876.95 in 1929 for machine parts replaced are all properly chargeable as an expense incurred by the Krentler

Company solely in connection with and on account of its dealings in the infringing device.

I find that machine parts replaced were principally for new jigs to all of the company's customers who ordered the new sliding link hinges.

The old jigs previously supplied by the Krentler Company to its customers were not suited to be applied to lasts having the new sliding link hinge owing to the difference of location of the holes for the pins due to the difference in the manner of holding the last for sawing the knuckle from the manner employed with the B. B. lasts, which latter had a hole bored transversely through the block around which the knuckle was formed and constituting the central pin hole for the B. B. hinge. Also new jigs were required in view of the change in the cut of the slot for the sliding link hinge over the B. B. hinge.

It always has been the custom with the Krentler Company to provide its customers with jigs required to fit its products to the lasts manufactured by its customers. It was a condition precedent to securing the new sliding link business and as such constituted a charge in its entirety against the sliding link hinge business and not an expense that is apportionable between that business and the other business of the company.

I further find that in this account as originally submitted by the Krentler Company there was erroneously included in the item of miscellaneous expense for the year 1928 two items, both of which were chargeable to the new sliding link hinge business. One was a charge of $862.50 for advertising in the American Shoe Making Journal, and the other was a credit of $500 which was allowed to a customer as damages which it suffered by reason of defective sliding link hinges furnished by the Krentler Company and installed by the customer in lasts manufactured by such customer. This damage was done to the last business of the customer owing to the fault of the sliding link hinges supplied by the Krentler Company and as such was paid by the Krentler Company allowing to its customer a credit to the extent of $500. This item is entirely chargeable to the sliding link hinge business.

In the present instance, there is, in my opinion, evidence which does enable the master satisfactorily to apportion the interest between the infringing and non-infringing business conducted by the Krentler Company.

I decline to adopt the contention of the Belcher Company, which is, in effect, that no allowance should be made to the Krentler Company either in whole or by way of apportionment unless such whole charge or such apportionment, as the case may be, can be traced directly to and as a part of the infringing business.

There is, in my opinion, ample authority for ruling as I do that where the evidence is sufficient to enable the master satisfactorily to apportion the expense of doing business so that it fairly can be said that certain charges are clearly attributable to the infringing business, and other charges constitute a fair and reasonable percentage of all of the charges incident to the conducting of both an infringing and a non-infringing business, it is the duty of the master to allow such charges.

I therefore revise the account as submitted by the Krentler Company in the following particulars so far as the credit items are concerned:

| | |
|---|---|
| I allow it as the purchase price of sliding link hinges, | $38,969.94 |
| I allow it a credit as the purchase price of pins for the same hinges, | 10,402.89 |
| I allow it as a credit for new machine parts in 1927, | 399.24 |
| in 1928, | 1,840.39 |
| in 1929, | 876.95 |
| I allow it as a credit for advertising the new sliding link hinge in 1928, | 862.50 |
| I allow it as a credit the sum paid to a customer by way of damages, | 500.00 |
| I allow it as a credit by way of an apportionment of salaries, | 22,352.17 |
| I allow it as an apportionment of rent, | 2,085.94 |
| I allow it as an apportionment of taxes, City of Detroit, | 2,508.96 |
| I allow it as an apportionment of State and County taxes, | 554.30 |

| | |
|---|---|
| I allow it as an apportionment of the Michigan privilege tax, | 684.35 |
| I allow it as an apportionment of miscellaneous expenses, | 711.96 |
| I allow it as an apportionment of traveling expense—salesmen, | 3,878.81 |
| I allow it as an apportionment of insurance, | 11.76 |
| I allow it as an apportionment of the depreciation on office furniture, | 11.52 |
| I allow it as an apportionment of freight, | 257.90 |
| I allow it as an apportionment of the expense for shipping boxes, | 161.23 |
| I allow it as an apportionment of depreciation of machinery, | 201.17 |
| A total of | $87,271.98 |

In making this finding I have not disregarded the specific objection made by the Belcher Company to any allowance whatever by way of salary to Mr. E. O. Krentler, who received for managing and supervising the business of the company $9,500 per year, paid in equal monthly amounts for over five years at the same rate. This Mr. Krentler is a stockholder in the Krentler Company holding sixteen out of a total of 3,000 shares outstanding.

The basis of the Belcher Company's objection is that Mr. Krentler knew of the previous decisions of the court in this cause and that, as the Krentler Company has been adjudged in contempt, it should be found and ruled by the master that the Krentler Company ought not to be allowed as a credit any part of the salary paid to Mr. Krentler.

Whatever may be the rule of law with respect to an individual who has been adjudged guilty of contempt for violation of an injunction against infringement, I do not know of any rule that has been established as against a corporation with respect to the usual and ordinary reasonable salary paid to one of its officers and employees.

I therefore decline to adopt the contention of the Belcher Com-

pany and find and rule that the salary paid to Mr. Krentler is a proper item to be taken into consideration in making the allowances hereinbefore set forth.

I find that the profits made by the Krentler Company as the result of dealing in the infringing device amount to $39,576.26.

The costs and expenses, including counsel fees, which the petitioners claim to have incurred in preparing and prosecuting these contempt proceedings are as follows:

| | |
|---|---|
| Miscellaneous cash disbursements, | $124.15 |

This item I allow.

| | |
|---|---|
| Services of Lybrand, Ross Bros. & Montgomery, Certified Public Accountants, for services during November and December, 1929, and February and April 1930, | 265.00 |

This item I allow.

| | |
|---|---|
| Counsel fees for services during October, 1928 | 202.50 |
| " " " January, 1929 | 150.00 |
| " " " February, 1929 | 175.00 |
| " " " March, 1929 | 256.76 |
| " " " April, 1929 | 250.00 |
| " " " May, 1929 | 107.90 |
| " " " June 1929 | 785.08 |
| " " " July 1929 | 1875.00 |
| " " " August 1929 | 1064.00 |
| " " " September, 1929 | 600.00 |
| " " " October– November, 1929 | 135.00 |
| Counsel fees for services during December, 1929, January and February, 1930, | 250.00 |
| Counsel fees for services during April, 1930, | 251.48 |
| | $6491.87 |

All of these charges for services, except the charge of $251.48 for the month of April, 1930, have been paid by the Belcher Company. The nature and character of these services was described

in some detail by Mr. Spear by whom and other members of his office force such services were rendered.

I find the charges to be reasonable for the services rendered and that such services were rendered wholly in connection with the preparation and prosecution of these contempt proceedings and I therefore find in favor of the Belcher Company in the sum of $6,491.87 to cover costs and expenses, including counsel fees, incurred by the petitioners in preparing and prosecuting these contempt proceedings. This sum and the $39,576.26 profits hereinbefore found make a total of $46,068.13 and I find for the Belcher Company in that amount with interest from such date as may be agreed upon by the parties or fixed by the court.

If the court shall rule as a matter of law that no salary paid to Mr. E. O. Krentler should be taken into consideration, then the amount of profits should be increased by the sum of $13,969.54, and if the court shall rule as a matter of law that the Krentler Company is not entitled to any deduction by way of credit for expenses apportioned unless such expenses are directly traceable and attributable to its dealings in the infringing device, then the profits should be increased by the sum of $32,788.01, which last mentioned amount, of course, necessarily includes the $13,969.54 next hereinbefore mentioned.

Counsel were each furnished with a copy of the master's draft report and a time and place appointed for hearing and considering such suggestions, if any, as counsel might desire to make concerning changes to be made therein.

The foregoing is the final draft of my report after hearing and considering such suggestions.

Counsel were each furnished with copies of the substitute pages of the report on which any changes from the original draft occurred.

Respectfully submitted,

ARTHUR P. HARDY, *Master.*

PETITIONER'S ACCOUNT FOR COUNSEL FEES AND EXPENSES.

Ellis Spear, Jr., 625 Tremont Bldg., Boston, Mass.

SERVICES RENDERED AND DISBURSEMENTS MADE ON BEHALF OF GEORGE E. BELCHER COMPANY

Matter Krentler Contempt Proceedings

Statements attached hereto:

| | | | | |
|---|---|---|---|---|
| 1928 | | | | |
| Nov. | 1 | Services for October, 1928: | | $202.50 |
| 1929 | | | | |
| Feb. | 1 | Services for January, 1929: | | 150.00 |
| March | 1 | " " February " | | 175.00 |
| April | 1 | " " March " | | 256.76 |
| May | 1 | " " April " | | 250.00 |
| June | 7 | " " May " | | 107.90 |
| July | 1 | " " June " | | 785.08 |
| Dec. | 5 | " " July " | | 1875.00 |
| | 5 | " " August " | | 1064.00 |
| | 5 | " " September " | | 600.00 |
| | 5 | " " October–November | | 135.00 |
| | 5 | Disbursements: | | 124.15 |
| 1930 | | | | |
| March | 4 | Services for Dec., Jan. and Feb. | | 250.00 |
| May | 1 | " " April, 1930: | | 251.48 |
| | | | | $6226.87 |

1928

Nov. 1 Oct. 8, 9, 10, 15, 16, 19, 20, 22, 23, 24, and 25. Question of infringement; possible form of action to be brought; consideration of questions of contempt of court; supplemental bill and motion for supplemental injunction; inter-office conferences from time to time. Report to Mr. Foster and telephone conference with him. Study of Krentler patent No. 1,685,783 and its bearing on new struc-

| | | |
|---|---|---|
| | ture. Search for other recent Krentler patents; preparation of draft papers in connection with further action and reports to Mr. Leman and Mr. Foster: | $200.00 |
| | Cost of history of Krentler patent No. 1,685,783: | 2.50 |
| | | $202.50 |
| 1929 | | |
| Feb. 1 | Dec. 14, 15. Jan. 25, 26, 28, 29, 30, 31. Matter of new Krentler construction and infringement of Peterson patent. General conferences with Mr. Foster, Mr. Leman, and Mr. Glazier; discussion of the several phases of situation; question of proceeding against Krentler either by contempt of court proceedings or supplemental bill of complaint on basis of new construction. Inter-office conferences and study of Peterson patent at length to determine question of infringement. Report *re* same; matter of submitting Krentler link to Mr. Louis Smith for his independent opinion. Consideration of same; matter of having test made to determine the exact action of new Krentler link and report: | $150.00 |
| March 1 | Feb. 1, 2, 5, 6, 7, 8, 10, 11, 12, 14, 15, 20, 21, 23, 26. Further consideration of Krentler infringement and advertisements of same in American Shoemaking Magazine; matter of notices to Krentler and others; consultations, telephone and personal, with Mr. Leman, Mr. Southworth, and Mr. Glazier. Matter of obtaining photostatic copies of Krentler advertisement in American Shoemaking Magazine and study of these: | $175.00 |
| April 1 | Feb. 27, 28. March 1, 5, 6, 7, 14, 15, 21, 22, 25. *Re* new infringing link. | |

Matter of tests and conferences with Mr. Smith. Trips to Mass. Institute of Technology and conferences with Prof. Coudray; general matter of evidence of infringement. Matter of notice to Krentler. Consideration of letter from counsel for Krentler; generally *re* development of Krentler's knowledge of injunction and broad scope of same and correspondence: $225.00

Photostatic prints of advertisement: 11.16

Mr. Smith's charge for examining last and opinion: 20.00

Cost of copies of Peterson patent: .60

$256.76

May 1 April 5, 8, 11, 13, 25. Preparation of affidavit of Louis C. Smith on motion to show cause why Krentler should not be held in contempt of court; on motion for order to show cause why Krentler should not be held for civil and criminal contempt and wilful violation of injunction; also on petition of defendant counter-claimants for an order holding plaintiff in civil and criminal contempt for violation of injunction and preparation of said motions. Telephone conference with Mr. Glazier: $250.00

June 7 April 29. May 1, 2, 3, 6, 15, 16, 17, 22, 24, 29. Inter-office conferences discussing situation; telephone conference with Prof. Coudray; study of petition and matter of revision; At Mass. Institute of Technology obtaining Prof. Coudray's report and conference considering same. Telephone conference with Mr. Southworth relative to letters to last manufacturers in Massachusetts; Examination of motion on

order to show cause, revision of Southworth affidavit. At Court with Judge Lowell *re* hearing of motions in contempt proceedings: $106.70
Cost of telephone calls: 1.20
$107.90

July 1 June 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27. Two conferences with Judge Lowell *re* contempt proceedings securing order to show cause; matter of serving papers on Krentler-Arnold Hinge Last Company, Mr. Hodder, and Mr. Drew. Consideration of letter from Mr. Drew returning notice and denying directorship in Krentler-Arnold Hinge Last Company. Inter-office conference in regard to situation and study of law and cases bearing on contempt proceedings and liability of Mr. Drew within this jurisdiction as a former director; also matter of right of Krentler to introduce evidence on issues of validity bearing on invention and anticipation of Peterson patent. Matter of forwarding papers to Mr. Drew and letter to him relative to the same. Consideration of Mr. Hodder's letter refusing acceptance of notice advising he is no longer attorney of record but noting that withdrawal from case had not been filed; consideration of law and cases dealing particularly with relation of attorney for defendant in contempt proceedings and his duties under the facts; inter-office conferences from time to time discussing importance of notice to party charged with contempt; consideration of letter from Barthel & Barthel and

its effect on general question of jurisdiction; Report to Company with copies to Messrs. Leman, Foster and Glazier. Preparation of affidavits showing service of order to show cause in civil and contempt proceedings together with supporting papers on James R. Hodder as counsel of record; study of points to be presented at the hearing as showing deliberateness and disregard of the court order and injunction; study of law on question of powers of the court to enforce obedience to and respect for the orders and issuing orders and writs to bring defendant through its officers into its jurisdiction. Further service of papers on Mr. Drew and Krentler-Arnold Hinge Last Company. Correspondence with Mr. Hodder citing cases on contempt proceedings and returning papers for his consideration. Consideration of Mr. Hodder's letter of June 12th noting admissions with respect to infringement, developing outline as basis for argument and framing proposition in terms of language of court cases; study of original record on appeal for points relative to admissions of Drew and Krentler; examining decisions in Krentler *v.* Belcher for material on jurisdiction and infringement; analysis of statement by Krentler-Arnold Hinge Last Company in advertisements co-ordinating the same to show deliberateness of purpose while Mr. Hodder actively participated as counsel. At Clerk's office examining Mr. Hodder's withdrawal as attorney of record, discussing with Clerk law relative to services under the facts of this case; preparation of memo of counterclaim-

ants on civil and criminal contempt proceedings against Krentler-Arnold Hinge Last Company. Consideration return of papers by Mr. Drew and matter of photostating package showing post marks; Conference with postal authorities as to significance of the various marks on the return package and matter of re-forwarding papers to Mr. Drew. Matter of stipulation and telegram to Barthel & Barthel *re* same. Conference with Assistant District Attorney relative to necessity of representative from District Attorney's office in view of criminal aspect of contempt proceedings. Further study of law for authority in this district on matter of stipulation under the facts of this case; examining equity and local court rules concerning manner and effect of notice of withdrawal of appearance by counsel and noting requirement of certain cases requiring petition and consent by court to withdrawal particularly where possible prejudice may result. Telephone conference with Mr. Cushman in regard to stipulation and correspondence with Barthel & Barthel *re* same. Consideration of form of stipulation to extend time under the order to show cause signed by Roberts, Cushman & Woodberry; inter-office conference reviewing situation and matter of refusal to stipulate to extension and compel appearance before Judge Lowell. Conference with Clerk of Court in regard to submitting question of extension to Judge Lowell. Telephone conference with Mr. Cushman notifying refusal to agree to stipulation and letter confirming same. Study of law and authorities in anti-

cipation of possible objections by Mr. Cushman as to procedure entitling cause and enjoining criminal and civil contempt proceedings and relation and effect upon appearance and question of jurisdiction and differences in burden of proof; analysis of opinion by First Circuit Court of Appeals dealing with procedure and practice in contempt proceedings; preparation of protest to withdrawal of Mr. Hodder in so far as such action might prejudice Belcher's right or tend to effect question of jurisdiction and differences in burden of proof. At District Court to attend to matter of hearing and noting extension of time granted; further conference with Clerk of Court on procedure and practice and matter of notice to foreign corporation through agent. Conference with Mr. Southworth considering commercial report on Krentler and reporting progress in contempt case, matter of obtaining evidence of sale of lasts from each of the Krentler licensees in Massachusetts.

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|---|---|---|
| | In all for services: | $758.00 |
| | Cost of photostats of exhibits: | 26.90 |
| | Telegram to Barthel & Barthel: | 1.08 |
| | | $785.08 |

Dec. 5 June 28, 27. July 1, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 29, 30, 31. Investigation and consideration of law at length on cases involving appearances and attempted withdrawals of attorneys and officers under injunction of Court; *res adjudicata* and injunction status Drew, Brockton Last Company and other infringing Krentler licensees. Consideration questions involved

in such infringement and cases bearing on binding effect of decree and injunction on Krentler's licensees. Investigation of condition of Krentler Company (1924–1927), checking annual reports as to status of Fred Drew as director and alleged resignation. Consultations at length on Krentler's continued attempt to avoid jurisdiction; non-appearance senior counsel and special appearance local counsel; analysis of Krentler's motion and affidavits; preparation counter affidavits; at Court before Judge Lowell (July 15th); preparation brief covering statutes and law at length; Court's consent to filing supplemental brief in reply to Krentler's brief; on jurisdiction and practice in contempt proceedings on colorable imitations distinguishing proceedings by supplemental bill.

In all for services: $1875.00

Dec. 1 August 1, 3, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16, 19, 20, 21, 23.

Further examination of law on civil and criminal contempt proceedings involving a modiffed form merely colorable modification considering Judge Lowell's letter indicating matters to be considered on hearing of August 8th; conferences Mr. Southworth; study of Krentler and additional affidavits. Search and examination of cases on claim construction involved Krentler's attack; consideration second Krentler supplemental brief, particularly attempted justification of sliding link on modified form of old B B hinge; conference preparatory to hearing on August 9th before Judge Lowell; appearance at same; further development of law and argument for

memo on supplemental bill and authority for proceedings *re* expert and other testimony. Consideration and study of the stenographic reports of hearings, consideration twenty-eight patents set up in Krentler affidavits; consideration cases bearing on law as to combination claims and non-pertinency of outside art. Preparation of motion to set date for taking testimony in present contempt proceedings; preparing supplemental memo on practice and procedure; appearance before Judge Lowell upon decision of Krentler on Court's alternative proposition; also considering on Belcher motion and memo; conferences with experts in anticipation of requirement for further hearing.

In all for services: $1064.00

Dec. 1 Sept. 4, 6, 9, 10, 11, 12, 16, 17, 20, 21, 23. Consideration Krentler letter *re* their decision to let present proceedings go to judgment; considering and prepation further proceedings; consideration opinion of Court, particularly effect thereof on the aspects of civil and criminal contempt; examining and reviewing the proceedings, formulation of drafts of orders; conferences with reference to same; consideration of cases on rights and issues involved on appeal under both aspects of case. Preparation for appearance before Judge Lowell on settlement of form of order and reference to Master Hardy; appearance before Judge Lowell in settlement of form of order and entrance of order on contempt and reference for accounting.

In all for services: $600.00

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|---|---|---|
| Dec. 1 | Oct. 2, 10, 11, 14, 15, 23, 28, 29. Nov. 5, 9, 25. Consultation with Mr. Robert Cushman and conference with Mr. Glazier reporting on same and report to Mr. Southworth. Checking up papers in old account and preparation of form of order from Master. Inter-office conferences from time to time with Mr. Cushman *re* accounting: | $135.00 |
| | Disbursements | |
| | Annual reports of Krentler Company: | $8.00 |
| | Photostats of exhibits attached to affidavits: | 44.09 |
| | Horace A. Edgecomb's professional services: | 42.06 |
| | Miscellaneous expenses, telegrams, copies of American Shoemaking Magazine, etc. | 30.00 |
| | | $124.15 |
| 1930 | | |
| March 4 | Dec. 3, 12, 14, 17, 19, 1929. Jan. 6, 10, 22, 29, 31. Feb. 10, 11, 12, 15, 17, 18, 24. Study of account submitted by Krentler admitting profits; analysis of same with previous accounting report; inter-office conferences relative to the same; consideration of recent U. S. decisions in point. Conference with accountants and preparation of draft objections to same; further study of law on proposition of possible second charge against Krentler for contempt in view of his report. Consideration of correspondence with Messrs. Barthel & Flanders and completion of objections to account. Correspondence with Messrs. Roberts, Cushman & Woodberry. In all for services: | $250.00 |
| May 1 | March 12. April 3, 4, 11, 15, 16, 23, 25. Inter-office conference with regard to hearing. Before Judge Morton with Mr. Hardy | |

and Mr. Cushman relative to conclusion of hearing before Master. Conferences with Mr. Pocock of Barthel & Barthel going over Krentler account. Reports from time to time to Mr. Southworth.

| | |
|---|---|
| In all for services: | $250.00 |
| Telegrams: | 1.48 |
| | $251.48 |

SUPPLEMENTAL STIPULATION AS TO TESTIMONY BEFORE MASTER.

The parties hereto, by their counsel, stipulate with each other that the Krentler-Arnold Hinge Last Company, if it calls its witnesses to testify in the accounting in this matter before the master, that their testimony would establish and prove the following:

The respondent's customers disclosed in Schedule B of the respondent's statement of account filed were all customers of the respondent before the introduction of the sliding link hinge.

The orders received from these customers were for shoe last hinges to meet their requirements for shoe lasts manufactured by the said customers for and according to the demand for lasts from them by the shoe manufacturers.

The said customers in Schedule B were purchasers of B. B. hinges before the sliding link hinge was offered to the trade for use in the same types of lasts as that in which the sliding link hinge was later used.

After the respondent ceased the sale of its sliding link hinge its customers who had been purchasing sliding link hinges purchased instead thereof the B. B. hinges sold by the respondent for lasts to meet the same requirements of shoe manufacturers in which they had previously used sliding link hinges.

EDWARD N. GODING,
*Counsel for Petitioner.*
ROBERT CUSHMAN,
*Appearing Specially for Respondent as of record.*

This cause was thence continued to the present June Term, A. D. 1930, when, to wit, June 27, 1930, the following Exceptions to Master's Report are filed:

EXCEPTIONS OF KRENTLER-ARNOLD HINGE LAST COMPANY TO MASTER'S REPORT.

[Filed June 27, 1930.]

Exceptions taken by the respondent to the report made herein by Arthur P. Hardy, one of the masters of this court, to whom this cause was referred by an order of this court made and entered on the twenty-third day of September, 1929.

FIRST EXCEPTION. That the said master in his report allowed the account of the petitioner for fees for legal services rendered in connection with these proceedings brought by the petitioner against respondent to recover compensation for the manufacture and sale of the sliding link hinge, whereas the said master should have not allowed the full amount of the said account in view of the fact that the said account is unreasonably high and exorbitant.

SECOND EXCEPTION. That the said master in his report did not analyze the account for the legal services as aforesaid, whereas he should have analyzed the exhaustive detail submitted and clarified the headings under which the charges were made in order to accurately ascertain exactly for what legal services the accounts were rendered.

THIRD EXCEPTION. The master should have distinguished the charges for services rendered for actual and necessary work from those charges for services in connection with matters irrelevant and unnecessary to the trial of the issue involved herein, such as the investigation of other Krentler patents, trips and conferences at Massachusetts Institute of Technology resulting in nothing that was used in this proceeding, such as investigations of law and fact regarding Drew liability, because Mr. Drew was not made a party nor was there any claim against him. Matters affecting licensees of the Krentler Company; development of law and argument of facts on supplemental bill; conferences with experts not used; checking old record and old accounting; further

charge for contempt against Krentler in view of his statement of account filed.

FOURTH EXCEPTION. The master should have considered the charges for services rendered and should have distinguished those that were required and necessary from those that are indefinite and for which charges appear unreasonably oftener than efficient handling of the case should require, such as examination of authorities on various points of law. In nearly every account there is a charge for examination of authorities on civil and contempt proceedings, on contempt proceedings and supplemental bill proceedings, repeated charges for investigation of law on service on attorney of record.

FIFTH EXCEPTION. The master should have considered the account in some such form as the following:

| Reasonable charge for the service alleged. | | Actual charge for services shown. |
|---|---|---|
| | Account rendered November 1, 1928: | |
| $50.00 | This account is in substance,—conference with client and advising *re* the effect of injunction with respect to respondent's new sliding link construction with authorization to take action | $200.00 |
| | Other items in this account have no bearing on the issue. | |
| | Accounts rendered February 1, March 1, and April 1, 1929: | |
| 50.00 | These accounts are in substance,—analysis of respondent's new sliding link hinge; analysis of Peterson patent and infringement opinion | 500.00 |
| | Other charges contained in these accounts appear more than once, and are irrelevant to the issue. | |

Accounts rendered May 1, and June 7, 1929:

These accounts are in substance,—preparation of affidavit of Louis C. Smith and of Mr. Southworth; preparation of motion to show cause; preparation for petition for order; and preparation for motion; revising petition; revising motion; and revising affidavits

$100.00 $356.70

Account rendered July 1, 1929:

This account is in substance,—attending court on ex parte application for order to show cause; service of order and accompanying papers on Krentler-Arnold Hinge Last Company (by Registered Mail) and on Mr. Hodder and Mr. Drew (Personal Service); considering stipulation for extension of time at the request of respondent and refusing same; attending court on return day and a motion for extension by respondent granted

250.00 758.00

This account contains a great deal of matter that is irrelevant to the issue, particularly the service on Mr. Drew, and numerous charges for investigation of law as to service on attorney of record, and numerous charges with regard to the simple matter of deciding whether to stipulate an extension or not.

Account rendered December 5, 1929:

This account is in substance,—investigating resignation of Mr. Drew; analysis of Krentler affidavits; preparing counter-affidavits; counsel fee at court on hearing, July 15th; preparing brief and supplemental brief

750.00 1375.00

Account rendered December 1, 1929:

This account is in substance,—examination of cases on claim construction involved in Krentler's attack; consideration of second Krentler brief; conference preparatory to hearing; counsel fee on hearing August 9, 1929; consideration of stenographic reports of hearing; consideration of 28 patents set up by Krentler; appearance before Judge Lowell upon election by Krentler to take contempt order 500.00 1064.00

Account rendered December 1, 1929:

This account is in substance,—drafting order; conference and appearance in court on settling order 50.00 600.00

This account contains a number of irrelevant and unnecessary charges with relation to matters not related to these proceedings.

Account rendered December 1, 1929:

This account is in substance,—preparing master's order and service thereof; interoffice conferenres with regard to the accounting 50.00 135.00

This account contains some irrelevant and unnecessary charges.

Account rendered March 4, 1930:

This account is in substance,—study of Krentler statement of account; consideration of recent United States decisions in point; conference with accountants; preparing objections to statement of account and secondary correspondence 100.00 250.00

This account contains some incidental and unnecessary charges, such as analysis of previous accounting report and consider-

ation and study of law on another charge against Krentler in view of his report.

Account rendered May 1, 1930:

This account is in substance,—arranging accounting hearing; inter-office conferences and in court; attendances *re* stipu-

50.00 lated testimony 250.00

ROBERT CUSHMAN,
*Solicitor for Respondent, Krentler-Arnold Hinge Last Company, appearing specially as of record.*

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On the twenty-fourth day of July, A. D. 1930, said cause comes on to be heard on exceptions to master's report filed by the Krentler-Arnold Hinge Last Company, the Honorable James A. Lowell, District Judge, sitting, and it was ordered that said exceptions be overruled and the master's report confirmed in both particulars excepted to, and interest on forty-six thousand sixty-eight dollars and thirteen cents ($46,068.13) be allowed from the date of the beginning of the contempt proceedings.

On the twentieth day of August, A. D. 1930, the following Final Decree in Civil Contempt of Court Proceedings is entered:

FINAL DECREE IN CIVIL CONTEMPT OF COURT PROCEEDINGS.

August 20, 1980.

LOWELL, J. This cause came on to be heard before me at a stated term of this court, upon the petition of the defendant counter-claimants, George E. Belcher Company and J. Howard Leman, administrator c. t. a. of the estate of George E. Belcher, deceased, for an order requiring the Krentler-Arnold Hinge Last Company to show cause why they should not be held guilty of civil and criminal contempt for deliberate violation of a permanent injunction of this court issued November 26, 1926 restraining the Krentler-Arnold Hinge Last Company, its officers, directors, agents or employees from infringing Peterson patent No. 1,195,266, the violation complained of being a sliding link; and upon said petition

and supporting affidavits and exhibits referred to therein, and upon the answering affidavits and reply affidavits, and upon argument of counsel an interlocutory order was made and entered September 23, 1929 directing a reference to Arthur P. Hardy as master for the purpose of taking an account of the profits made by the Krentler-Arnold Hinge Last Company and also for ascertaining the costs and expenses, including counsel fees incurred by the petitioners in the preparation and prosecution of these contempt proceedings, and this cause having come on to be further heard upon the report of Arthur P. Hardy as master, filed June 7, 1930, and also upon exceptions taken to the said report by both parties and having been argued by counsel for the respective parties, and upon consideration thereof, it is ordered, adjudged and decreed:

That the Krentler-Arnold Hinge Last Company is guilty of civil contempt of court for deliberate violation of the injunction heretofore issued by selling a link known as a sliding link;

That the petitioners are entitled as remedial relief upon the civil aspect of these contempt proceedings to an award of the profits made by the Krentler-Arnold Hinge Last Company by reason of the acts found to be in violation of the injunction;

That the petitioners are further entitled to a sum to be paid by the Krentler-Arnold Hinge Last Company to petitioners, sufficient to compensate them for their expenses in these contempt proceedings, including the usual costs, and in addition thereto the expenses incurred in preparation and prosecution of these contempt proceedings, including counsel fee of petitioners;

That the said exceptions to the master's report of June 7, 1930 be and they are hereby overruled and the master's report be and the same is hereby confirmed;

That the petitioners, George E. Belcher Company and J. Howard Leman, administrator c. t. a. of the estate of George E. Belcher, deceased, recover from the respondent Krentler-Arnold Hinge Last Company, for infringement of said Letters Patent, the sum of thirty-nine thousand five hundred and seventy-six dollars and twenty-six cents ($39,576.26) as profits made by the respondent from the sale of the said sliding link, and the sum of six thousand,

one hundred and two dollars and seventy-two cents ($6,102.72) as counsel fees for services rendered from October, 1928 to and including April, 1930 on behalf of the petitioners in the prosecution of these contempt proceedings and the sum of three hundred and eighty-nine dollars and fifteen cents ($389.15) for expenses, said sums amounting to forty-six thousand and sixty-eight dollars and thirteen cents ($46,068.13), together with interest on said sum of forty-six thousand and sixty-eight dollars and thirteen cents ($46,068.13) from June 4, 1929, the date of the commencement of these contempt proceedings, to the date of entry of this order at the rate of 6 percent per annum amounting to three thousand, two hundred twenty-four dollars and seventy-six cents ($3,224.76), in all the sum of forty-nine thousand two hundred and ninety-two dollars and eighty-nine cents ($49,292.89).

JAMES A. LOWELL,
*Judge of United States District Court.*

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From the foregoing final decree, Krentler-Arnold Hinge Last Company claims an appeal to the United States Circuit Court of Appeals for the First Circuit, and gives good and sufficient security that it will prosecute its appeal to effect and answer all costs if it fail to make its plea good, and said appeal is allowed accordingly.

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MEMORANDUM.
September 9, 1929.

LOWELL, J. This is a clever imitation of the Peterson spring wedge adopted by the Krentler-Arnold Company in a deliberate attempt to discover a means of availing itself of the invention without infringing the patent. At first sight it appears to be merely an adaptation to a hinged last of the old double-acting or jack-knife spring; in reality it contains the principle invented by Peterson of

> "a longitudinally resilient connecting member connected to both the heel part and the fore-part of the last at points which are in a line at one side of the axis of movement of

the heel part when the last is extended, and at the other side of said axis when the last is collapsed."

Since the beginning of this action for infringement, which was brought originally by the Krentler-Arnold Company, it has consistently disobeyed the orders of this court. It has now adopted an artifice,—which was nearly successful,—calculated to deceive an unwary judge.

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PETITION OF KRENTLER-ARNOLD HINGE LAST COMPANY FOR APPEAL.

[Filed August 30, 1930.]

The above named respondent, conceiving itself aggrieved by the decree made and entered on the twentieth day of August in the above-entitled cause, does hereby appeal from said order and decree to the United States Circuit Court of Appeals for the First Circuit, for the reasons specified in the assignment of errors which is filed herewith, and it prays that this appeal may be allowed and that a transcript of the record, proceedings and papers upon which said order was made, duly authenticated, may be sent to the United States Circuit Court of Appeals for the First Circuit.

ROBERT CUSHMAN,
*Solicitor for the Respondent by special appearance and without waiving objection to the jurisdiction of this Court.*

Appeal allowed September 10, 1930.

J. M. MORTON, Jr.,
*United States District Judge.*

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ASSIGNMENT OF ERRORS.

[Filed August 30, 1930.]

Now comes the respondent, Krentler-Arnold Hinge Last Company, by Robert Cushman its solicitor and having prayed an appeal to the United States Circuit Court of Appeals for the First Circuit from the final decree of the said District Court entered on August 20, 1930, respectfully represents as grounds of appeal

and as an assignment of errors herein that the said District Court erred in the following particulars:

1. In holding that the said court has jurisdiction over the respondent, a foreign corporation not having a regular and established place of business in the State of Massachusetts and not a resident thereof or found therein.

2. In finding that the respondent's sliding link construction is a mere colorable imitation of the link and bow spring construction originally adjudicated an infringement of the petitioner's Letters Patent No. 1,195,266.

3. In not holding that the present cause of action is a new and independent cause of action from that of the original equity suit between the same parties in this court No. 1853, by reason of the new and different character of the respondent's sliding link.

4. In holding the burden of proof in this contempt proceedings to be on the respondent instead of the petitioner by resolving in favor of the petitioner, and against the respondent, the clear case of doubt shown by the affidavit evidence on clear issues of fact and law as to the scope of the petitioner's patent and as to the identity of the respondent's sliding link construction with the link and bow construction originally enjoined.

5. In hearing and adjudging in a summary proceeding and on nothing but affidavit evidence and without cross-examination of the deponents making such affidavits, the issues of interpretation and infringement of the petitioner's patent which are raised by the charge of infringement against the respondent's sliding link construction, which is a new device not heretofore before this court and dissimilar in structure and operation from the link and bow spring device formerly sold by the respondent and formerly adjudicated by this court.

6. In finding that the respondent has infringed said Letters Patent by the sale of the said sliding link.

7. In ordering the respondent to account, in this contempt of court proceedings, for the profits from the sale of the sliding link and in awarding such profits to the petitioner as remedial relief.

8. In holding the petitioner entitled to interest on the sum of

forty-six thousand and sixty-eight dollars and thirteen cents ($46,068.13) from the commencement of the contempt proceedings and not from the date of the master's report.

9. In awarding the petitioner a counsel fee of over sixty-one hundred dollars for a motion in a summary proceeding for an order for contempt of court.

Wherefore the respondent prays that the said decree be reversed

ROBERT CUSHMAN,
*Solicitor for the Respondent by special appearance and without waiving objection to the jurisdiction of this Court.*

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BOND ON APPEAL.

[Filed and Approved September 10, 1930.]

*Know all Men by these Presents*, that we, Krentler-Arnold Hinge Last Company, of Detroit, Michigan, a corporation organized under the laws of the State of Michigan, as principal, and United States Fidelity & Guaranty Company, a corporation organized under the laws of the State of Maryland and having an usual place of business in Boston, in the County of Suffolk and Commonwealth of Massachusetts, as surety, are held and firmly bound unto J. Howard Leman, Administrator c. t. a. of the Estate of George E. Belcher, deceased, and George E. Belcher Company, of Stoughton, Massachusetts, a corporation organized under the laws of the Commonwealth of Massachusetts, jointly and severally, in the full and just sum of Two Hundred and Fifty Dollars ($250.00) to be paid to the said J. Howard Leman, Administrator as aforesaid and/or said George E. Belcher Company, their successors and assigns; to which payment, well and truly to be made, we bind ourselves, our assigns, jointly and severally, by these presents. Sealed with our seals and dated this ninth day of September, in the year of our Lord one thousand, nine hundred and thirty.

Whereas, lately to wit on August 20, 1930 at a District Court of the United States for the District of Massachusetts in a suit in equity depending in said Court between said Krentler-Arnold

Hinge Last Company, and said J. Howard Leman, Administrator as aforesaid and said George E. Belcher Company, a decree was entered against said Krentler-Arnold Hinge Last Company, and said Krentler-Arnold Hinge Last Company having obtained an appeal to remove said cause to the United States Circuit Court of Appeals for the First Circuit to reverse the said decree in the aforesaid suit, and a citation directed to the said J. Howard Leman, Administrator as aforesaid and the said George E. Belcher Company, citing and admonishing them, and each of them, to be and appear in the United States Circuit Court of Appeals for the First Circuit, in the City of Boston, Massachusetts, on the Ninth day of September A. D. 1930.

Now, the condition of the above obligation is such, that if the said Krentler-Arnold Hinge Last Company shall prosecute this appeal to effect and answer all damages and costs if it fails to make its appeal good, then the above obligation to be void; else to remain in full force and virtue.

KRENTLER-ARNOLD HINGE LAST COMPANY

[SEAL] *by* E. O. KRENTLER *President*

AUGUSTA L. RIEGEL *Acting Secretary*

UNITED STATES FIDELITY & GUARANTY COMPANY,

[SEAL] *by* ANDREW S. NELSON *and* CHARLES HAAS

Approved. J. M. MORTON, Jr.,
*United States District Judge.*

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CITATION ON APPEAL.

UNITED STATES OF AMERICA, SS.

THE PRESIDENT OF THE UNITED STATES,

*To* J. HOWARD LEMAN, *Administrator c. t. a. of* GEORGE E. BELCHER, *deceased, and the* GEORGE E. BELCHER COMPANY, *a corporation organized under the laws of the Commonwealth of Massachusetts, and having its principal place of business in Stoughton, County of Norfolk, in said Commonwealth,* GREETING:

You are hereby cited and admonished to be and appear in the

United States Circuit Court of Appeals for the First Circuit, in the City of Boston, Massachusetts, on the tenth day of October next, pursuant to an appeal duly obtained from a decree of the District Court of the United States for the District of Massachusetts, wherein Krentler-Arnold Hinge Last Company, a corporation organized and existing under the laws of the State of Michigan, and having its principal place of business in Detroit, Michigan, is appellant and you are appellees, to show cause, if any there be, why the said decree, entered against the said appellant, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

Witness, the Honorable JAMES A. LOWELL, Judge of the District Court of the United States for the District of Massachusetts, this tenth day of September, in the year of our Lord one thousand nine hundred and thirty.

JAMES M. MORTON, JR.,
*United States District Judge.*

ACKNOWLEDGMENT OF SERVICE OF CITATION ON APPEAL.

Service of the within citation is hereby acknowledged this fifteenth day of September, 1930.

EDWARD N. GODING,
*Counsel for Appellee.*

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CLERK'S CERTIFICATE.

UNITED STATES OF AMERICA,
DISTRICT OF MASSACHUSETTS, ss.

I, James S. Allen, Clerk of the District Court of the United States for the District of Massachusetts, do hereby certify that the foregoing is the transcript of the record on the appeal of Krentler-Arnold Hinge Last Company, including true copies of such proofs, entries and papers on file as have been designated by praecipe in the cause entitled,

No. 1853,

J. HOWARD LEMAN, ADMINISTRATOR C. T. A. OF THE ESTATE OF GEORGE E. BELCHER, DECEASED, AND GEORGE E. BELCHER COMPANY, PETITIONER,

*v.*

KRENTLER-ARNOLD HINGE LAST COMPANY,

in said District Court determined, together with the original citation with the acknowledgment of service thereon.

In testimony whereof, I hereunto set my hand and affix the seal of said District Court, at Boston, in said District, this eleventh day of December, A. D. 1930.

[SEAL] JAMES S. ALLEN, *Clerk.*

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[MEMORANDUM. Orders of enlargement of time for docketing case to, and including, December 24, 1930, are here omitted. A. I. CHARRON, *Clerk.*]

IN UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FIRST CIRCUIT, OCTOBER TERM, 1930

No. 2525

KRENTLER-ARNOLD HINGE LAST COMPANY, Defendant, Appellant,

v.

J. HOWARD LEMAN, Administrator C. T. A., et al., Plaintiffs, Appellees

Appeal from the District Court of the United States for the District of Massachusetts

Before Bingham, Anderson, and Wilson, JJ.

OPINION OF THE COURT—March 10, 1931

BINGHAM, J.:

This is an appeal from a final decree of the District Court for Massachuetts of August 20, 1930, on a petition and motion to show cause why the Krentler-Arnold Hinge Last Company should not be held in contempt for the violation of a permanent injunction issued against it by the District Court November 26, 1926, in an equity suit there brought by the Krentler-Arnold Company against J. Howard Leman, Administrator, and the George E. Belcher Company, defendants-counter claimants, in which injunction it was provided that the Krentler-Arnold Hinge Last Company "shall not, directly or indirectly, make or cause to be made, use or cause to be used, sell or cause to be sold lasts embodying or containing the invention covered by claims 1, 2, 3, 4, 6 and 7 of Letters Patent of the United States No. 1,195,266, issued August 22, 1916, to Otto A. Peterson, and any substantial or material part thereof, or any substantial equivalent or colorable imitation thereof." The Peterson patent is the property of the complainants in the contempt proceedings, who are the counter-claimants in the equity suit.

In these contempt proceedings, by interlocutory decree of September 23, 1929, the Krentler-Arnold Company was

found guilty of civil contempt; that the complainants were entitled to equitable relief and should recover, by way of an award, the profits made by the Krentler-Arnold Company in violating the injunction; and that the respondent also should pay the complainants a further sum sufficient to compensate them for their expenses in these contempt proceedings, including the complainants' counsel fees and the usual costs; and a reference to a master for the purpose of determining these matters was ordered.

In the final decree, the master having reported, after repeating the findings made in the interlocutory decree, it was decreed that the complainants recover for infringement of the Peterson patent the sum of $39,576.26, being the profits made by the Krentler-Arnold Company from the sale of its infringing device; also $6,102.72 as counsel fees for services rendered from October, 1928, to the end of April, 1930, in the prosecution of the contempt proceedings; also $389.15 for expenses; amounting in all to $46,068.13, with interest thereon from June 4, 1929 (the date of the filing the contempt proceedings) to the date of the entry of final decree (August 20, 1930) at the rate of six per centum per annum, amounting to $3,224.76, and making the total sum payable $49,292.89.

The Krentler-Arnold Company is a Michigan corporation, having its place of business at Detroit, Michigan. It manufactures hinges for shoe lasts and sells them to the manufacturers of shoe lasts, who sell the lasts to the shoe manufacturers. It has no place of business in Massachusetts; it manufactures its hinges or links in Detroit and, so far as appears in these contempt proceedings, has committed no acts of infringement in Massachusetts.

The Belcher Company is a Massachusetts corporation and Leman, administrator, is a citizen of that State. The Belcher Company is a manufacturer of shoe lasts, and makes and uses its own hinges under the Peterson patent, No. 1,195,266. There is no direct competition between the two companies.

The final decree in the equity suit was entered March 1, 1928. The term of court at which this decree was entered ended later in the same month. The petition and motion for order to show cause in the contempt proceedings were filed in the equity suit June 4, 1929, and the order to show cause was entered on the same day. The service directed

and the only service that could be had in the Massachusetts District was by sending copies of the petition, the motion to show cause, and the order to show cause, together with the supporting affidavits of one Smith and one Southworth, by registered mail to the Krentler-Arnold Company at Detroit, and by serving the same papers upon James R. Hodder at Boston, who had been the attorney for the Krentler-Arnold Company in the equity suit. At the time of the service on Mr. Hodder his name appeared on the record in the equity suit as counsel and at that time had not been withdrawn, if that was necessary to render the purported service upon him of no avail.

On or before the fifteenth day of July, 1929, the date set for the hearing on the petition for contempt, Mr. Cushman entered a special appearance for the Krentler-Arnold Company for the sole purpose of objecting to the jurisdiction of the court, and filed a motion to dismiss the contempt proceedings for lack of jurisdiction. This motion was overruled, subject to exception. Without waiving the objection to the jurisdiction, the petition for contempt was then heard on the supporting affidavits of the complainants, counter affidavits of the Krentler-Arnold Company, and reply affidavits of the complainants, resulting in the decree of August 20, 1930, above spoken of.

The contempt proceedings, filed in the equity case, were entitled as of that case and, while they asked for punitive as well as remedial relief, the proceedings were treated by counsel for the respective parties and by the court as only asking for remedial relief. In other words, the allegations and prayer for punitive relief were disregarded and treated as surplusage. And the court, in its final decree, awarded nothing in the way of a penalty, but only by way of remedial relief. The contempt proceedings, therefore, are to be regarded and treated as proceedings in civil contempt, for such was the mutual understanding of the parties throughout the trial. Kreplik v. Couch Patents Co., 190 Fed. 565; Mitchell v. Dexter, 244 Fed. 926.

Although the proceedings for contempt were civil in nature and were entitled and filed in the equity suit, the Krentler-Arnold Company contends: (1) that inasmuch as the infringing device here complained of is not the same article held to have infringed the Peterson patent in the equity suit, and the term had expired at which the decree

in that suit was entered, and the damages and profits awarded by that decree had been satisfied, an independent suit in equity and a reinvestigation and consideration of the scope and vitality of the claims of the Peterson patent were necessary to determine whether the present device, a so-called sliding hinge, infringed; and that this properly could not be done in a proceeding for civil contempt. The reason underlying this contention apparently is that, if a new and independent suit in equity were necessary, it would have to be brought in the District of Michigan, where the Krentler-Arnold Company is incorporated and does business, for there alone could personal service be had upon that company.

Its second contention is that, if proceedings for civil contempt are, under the circumstances of this case, proper, the District Court was without jurisdiction to entertain the same as no personal service thereof was had on the Krentler-Arnold Company in the District of Massachusetts; that, the term of court at which the final decree in the equity suit was entered having expired, and the decree, so far as it awarded compensation, having been satisfied, the power of the District Court over that decree had ceased, the parties had been discharged and the court had no jurisdiction over the Krentler-Arnold Company, in the absence of personal service upon it within the District of Massachusetts.

As to the first contention, it seems to be fairly clear from the decided cases that "whether or not the different structure made by the defendant [the Krentler-Arnold Company], after being enjoined according to said final decree, also infringed said patent [the Peterson patent], was a question with which the District Court might deal according to various methods, either of which it was at liberty to select in its discretion" (National Metal Molding Co. v. Tubular Woven Fabric Co., 239 Fed. 907); and that if the court below regarded it as "really a doubtful question" whether the new device or structure was an infringement or not of the claims of the Peterson patent, the infringement of which was enjoined in the equity suit, it could, in its discretion, have directed that the complainants bring a new suit in equity against the Krentler-Arnold Company for the alleged infringement. California Artificial Stone Paving Co. v. Molitor, 113 U. S. 609, 618. On the other hand, if it regarded the new structure as a clear

infringement of the claims of the Peterson patent, the infringement of which was enjoined, or merely a colorable departure therefrom, it could, in its discretion, direct the parties to proceed in the contempt proceedings already brought. Kreplik v. Couch Patents Co., 190 Fed. 565.

In this case the District Court adopted the latter alternative. The hearing was had, as above pointed out, on affidavits. But before the trial began the Krentler-Arnold Company, in addition to presenting its case on affidavits, was given the opportunity 'to put in expert evidence,' but declined to do so, stating that "it preferred to proceed on the present contempt record if we proceed on the contempt order," meaning on the affidavits filed in the contempt proceedings.

In its affidavits the Krentler-Arnold Company set up a number of patents as anticipations of the Peterson patent, including therein patent No. 1,094,153, issued April 21, 1914, to W. A. Krentler, which it had previously set up as an anticipation of the Peterson patent in the original equity suit; it also set up a number of other patents not previously set up as anticipations in the original equity suit, and undertook to try anew the scope and validity of the claims of the Peterson patent. The District Court, however, had before it the record and proceedings in the original equity suit, including the decree in that suit. The proceedings in that suit disclosed that the scope and validity of the claims here in question were put in issue in the original equity suit and actually tried; and that they were held not to be anticipated, but valid as drawn. In other words, that they were not too broad in view of the prior art as presented and litigated in that case. The parties to that suit were the same as in the present proceedings and as the scope and validity of the Peterson claims here in issue were put in issue and actually tried and determined in that suit, the decree in that suit determining those issues is as evidence conclusive in these proceedings as to the scope and validity of the claims. Walter J. Rancourt v. Panco Rubber Co., decided February 11, 1931, and cases there cited.

As the decree in the original suit, as between these parties, conclusively established the validity and scope of the Peterson claims, nothing remained for the District Court to determine but the question whether the new device (the sliding link) of the Krentler-Arnold Company read

upon and infringed any of the claims of the Peterson patent, the scope and validity of which were determined in the original equity suit, and the infringement of which, by any substantial equivalent or colorable imitation thereof, was there enjoined.

It is clear that the new device answers in every respect the provisions of claims 2, 4, 6 and 7 of the Peterson patent; and that the question of infringement is not doubtful or even merely colorable, but certain. We are therefore of the opinion that the District Court did not err or abuse its discretion in entertaining the contempt proceedings and ordering the parties to trial thereon.

The second contention presents a question of first impression in this court, and the briefs and arguments of counsel have lent little or no aid to its solution. However, after a careful examination, the logic and reason of the situation seems to warrant no other answer than that the court had jurisdiction of the parties in the contempt proceedings.

It is undoubtedly true that in the federal courts the power of the court, on motion, to alter, modify, amend or revoke its judgments, except as to clerical errors, ends with the term at which the judgment is entered, although it retains power later to see that its judgment is executed. Schell v. Dodge, 107 U. S. 629; Casey v. Sterling Cider Co., 15 Fed. (2d) 52; Bronson v. Schulten, 104 U. S. 410; Brooks v. Railroad, 102 U. S. 107. It is also true that, while the federal courts of equity are for certain purposes always open (Equity Rule 1), the same rule as to the power of the court over its decrees is applied as in the case of judgments in a court of law, viz., that, after the term at which the decree is entered, the power of the court, on motion, to alter, amend, or revoke it, except as to clerical errors, has ceased. McGregor v. Vermont Loan and Trust Co., 104 Fed. 709; E. G. Staude Mfg. Co. v. Labombarde, 247 Fed. 879; Hart v. Wiltsee, 25 Fed. (2d) 863, and cases there cited; United States v. Trogler, 237 Fed. 181.

Under the English practice the power of the court ceased when the final decree was enrolled, irrespective of the terms of court. Until the decree was enrolled and thereby became a record, it could be altered by the court that made it upon motion or petition, but not after enrollment. In a great majority of the states and, it would seem from the

decisions of the Supreme Court, in the federal courts, the doctrine of enrollment is worked out by treating decrees as enrolled at the end of the term. Wetmore v. Karrick, 205 U. S. 141, 150; Goddard v. Ordway, 101 U. S. 745, 750, 751; 21 C. J. p. 706, Sec. 874.

But in this proceeding no attempt is being made to alter, amend, or vacate the decree in the original equity suit, after the term at which it was entered. It is a proceeding to enforce the execution of that decree in so far as it granted a permanent injunction. It may be conceded that, as to the balance of the decree, execution has been had; but so far as the question concerns the execution of the permanent injunction the decree has not been satisfied or the parties dismissed from the control and jurisdiction of the court. If this were not so, the injunction granted against the Krentler-Arnold Company, a non-resident corporation, would at the end of the term at which the decree was entered become an empty thing. On the contrary, logic and reason lead to the conclusion that, as to the enforcement of the decree and so long as any part of it remains open for enforcement, the parties are before the court and subject to its jurisdiction; and we think the decided cases, where this matter has been considered, lead to this result.

Pitt v. Davison, 37 N. Y. 235, was a civil contempt proceeding. An action (bill in equity) had been brought by the plaintiff against Joseph Davison for specific performance of a contract by which he agreed to convey certain premises to the plaintiff. A judgment or decree was rendered adjudging the plaintiff entitled to specific performance of the contract and directing another Davison (the defendant in the contempt proceeding and to whom Joseph Davison had fraudulently, as against the plaintiff, conveyed said premises) to convey them free from any encumbrance which he had put upon them.

The Davison to whom the land had been transferred was personally served in the equity suit or action with a copy of the judgment and required to appear before a referee appointed by the court to make the conveyance under the direction of the referee. He did not appear, but his counsel appeared and offered to read an affidavit excusing his noncompliance with that part of the judgment which required him to convey, setting out that subsequent to the contract of sale to the plaintiff, but prior to the commence-

ment of the suit for specific performance, he had mortgaged the property for $5,000, that the mortgage had been foreclosed, the premises sold, and he was unable to convey the premises to the plaintiff. The referee refused to receive the affidavit as an excuse and demanded compliance with the judgment, which was refused and he reported the refusal to the court and the reason therefor. The final judgment or decree in the equity action was entered in May, 1856. On December 9, 1857, the plaintiff obtained from a judge of the court, in which the equity action was brought, an order requiring Davison to show cause why an attachment should not be issued against him and he be punished for his alleged contempt in not having conveyed the property. This order to show cause was founded on the judgment in the equity action and the proceedings had thereon, and contained a direction that it be served on the defendant's attorney. It was so served, but no service was made on the defendant personally. At the return term named in the order the court adjudged the defendant guilty of contempt of court in wilfully neglecting and refusing to comply with the terms of the judgment or decree and ordered him committed to jail until he should comply with it. A precept issued and Davison was arrested and committed to jail.

He then made a motion to set aside the order under which he was committed and to be discharged from imprisonment on the ground that he had no personal knowledge of the order to show cause until after the granting of the order directing him imprisoned. Counter affidavits were introduced, one showing that a similar order to show cause had been previously issued and that after diligent search the officer was unable to make personal service thereof, and also controverting the facts stated in the defendant's affidavit bearing on his want of knowledge of the order to show cause. This motion was denied at a special term of the court and at a general term, on appeal, the order denying the motion was reversed and the defendant discharged from imprisonment. From that order an appeal was taken to the Court of Appeals. The question was whether personal service upon the defendant of the order to show cause, with the affidavits upon which it was granted, was necessary. The court below at the general term had held that personal service was indispensable.

The Court of Appeals pointed out, however, that this was not a proceeding to punish for criminal contempt, but was a proceeding for contempt to enforce a civil remedy; that where the proceeding is for civil contempt "the party in default has already had the opportunity of contesting his liability to perform what the proceeding seeks to compel him to perform, and such proceeding is in effect but an execution of the judgment or order against him."

The court further said:

"In the case at bar it is correct, I think, to say, that the proceeding was one taken in the action. The judgment remained unexecuted, and the court was proceeding, in the mode prescribed by the statute, to execute its judgment. The order to show cause provided for by the statute, in the absence of any statutory provision to the contrary, was, then, governed by the practice of the court in regard to orders to show cause, both in respect to its service and the further proceedings upon it. That, according to such practice, an order to show cause may be served upon the attorney of the party, will not be denied. Indeed, that is the mode of service of all papers in the action prescribed by the code, except the summons of other process, or any paper to bring a party into contempt. Code, §§ 417, 418. The papers in this case which brought the party into contempt, were the certified copy of the judgment and the summons and underwriting of the referee, requiring the defendant to appear before him and make the conveyance. These were personally served, and the defendant, by his refusal to comply with them, was brought into contempt."

As to the service of the order to show cause the court said:

"The order to show cause is, in effect, but a notice of motion, and according to the practice of the court, may ordinarily be served upon the attorney of the adverse party. Although in this case the judgment was entered in May, 1856, and the order to show cause was made and served on the defendant's attorney on the 9th of December, 1857, yet, inasmuch as it appears that the defendant had avoided the service of a prior order to show cause, and that, after service of the second order, by the direction of the court, upon the attorney, and before the granting of the order on which

the defendant was arrested and imprisoned, he consulted with his said attorney, and has not denied that the attorney was authorized to appear for him and oppose the granting of the order for his arrest and imprisonment, as he did appear, it must be clear, that the attorney is to be regarded as the defendant's attorney, when the service was made, and that the service of the order to show cause was in all respects sufficient."

And continuing, the court said:

"A further ground for the decision of the general term, put forth in the opinion, is, that inasmuch as the defendant was never personally before the court in this matter, the court had no jurisdiction of his person, and, therefore, the order for his arrest and imprisonment was unauthorized and void. If the proceeding is to be regarded as one in the action, as I have endeavored to show it is, then clearly this ground is not well taken. The court having obtained jurisdiction of the person of the defendant in the action, retains that jurisdiction for all purposes of enforcing the judgment, until its requirements are fully performed and executed."

In Merrimack River Savings Bank v. Clay Center, 219 U. S. 527, the plaintiff brought a bill in equity in the Federal Circuit Court for the District of Kansas claiming to be a creditor of the Clay Center Light & Power Company by bonds secured by a mortgage on the Light & Power Company's plant, etc., against the city of Clay Center, the Light & Power Company and certain individuals. It was alleged that the Light & Power Company owned and conducted a light and power plant at Clay Center under a perpetual franchise authorizing it to place and maintain a line of poles and wires upon the streets of the city; that the city, claiming that the franchise had expired, had, through its council, of which the individual defendants were members, required the Light & Power Company to remove the poles and wires, and that the officials named as individual defendants were threatening to cut down and destroy its poles and wires, etc., to its irreparable damage in the loss of its security. A temporary injunction issued restraining the destruction of the poles and wires. The bill was dismissed for want of federal jurisdiction and an appeal was taken

to the Supreme Court, but the injunction was continued pending the appeal.

In the Supreme Court the appeal was dismissed for want of jurisdiction, but before its mandate issued or could issue, and pending an application for rehearing, certain of the defendants to the appeal cut down and destroyed the poles and wires. The plaintiff then petitioned the Supreme Court and, after setting out the above facts, alleged that the defendants destroyed the poles and wires knowing that the appeal was pending, and that the Supreme Court had not lost control of the controversy, and that no mandate had issued. The prayer was that the defendants be cited and required to appear and show cause why they should not be proceeded against for contempt. Such a rule was made and the defendants appeared and answered. They also moved to discharge the rule because the petition failed to allege that the defendants had violated any injunction or mandate of the Supreme Court, on the ground that the injunction issued pending the appeal was the injunction of the Circuit Court and that its violation was only cognizable in that court; and, second, if that be so, the petition failed to show facts constituting contempt of the Supreme Court.

It was held (1) that the Circuit Court had power to continue the injunction in force pending appeal; (2) that "plainly the effect of continuing the injunction operated to continue in the Circuit Court such jurisdiction over the subject-matter of the litigation and of the parties as to enable it to preserve the status quo pending the appeal, including the power to take cognizance of a violation of its injunction"; and (3) the court expressed the opinion, although it did not decide the question, that a violation of the injunction was also a contempt of the appellate jurisdiction of the Supreme Court.

In this case not only had the term of the Circuit Court ended at which the decree granting the injunction was made, but at the time the alleged contempt took place and the contempt proceedings were brought, the case was in the Supreme Court on appeal, and it was held that the Circuit Court in which the injunction was pending had "such jurisdiction over the subject-matter of the litigation and of the parties as to enable it to preserve the status quo pending the appeal, including the power to take cognizance of a violation of its injunction."

In Gompers v. Buck Stove & Range Co., 221 U. S. 418, the Range Company had brought a suit in equity against Gompers, Mitchell and Morrison in the Supreme Court for the District of Columbia and, on March 23, 1908, obtained a permanent injunction restraining them from conspiring, agreeing or combining in any manner to restrain, obstruct or destroy the business of the complainant, etc. From this final decree the respondents appealed to the Court of Appeals for the District and, while the case was pending there, but before a decision had been reached, the Buck Stove & Range Company began contempt proceedings in the Supreme Court for the District by filing a petition therefor in the equity suit. All of the record in the original cause, including the testimony, was made a part of the petition. The petition set out publications charged to be violations of the temporary injunction of December 23, 1907, and other publications alleged to be violations of the final decree and injunction of March 23, 1908.

The Supreme Court of the District, on December 23, 1908, found the respondents guilty of contempt, they having disobeyed the plain mandates of the injunctions, and ordered them imprisoned in jail. From that decree the respondents appealed to the Court of Appeals for the District. On March 26, 1909, the Court of Appeals rendered a decision in favor of the Buck Stove & Range Company on the appeal from the decree of March 23, 1908, in the equity case, and entered a decree in its favor, modified somewhat from that of the Supreme Court. From the decree of the Court of Appeals in the equity case, both parties appealed to the Supreme Court of the United States.

When the decree of the Supreme Court of the District in the contempt proceeding came on for hearing in the Court of Appeals, the Buck Stove & Range Company moved to dismiss the appeal, claiming that it was a criminal proceeding and should have been brought up by writ of error. The respondents, however, contended that it was a part of the equity case and properly removable on appeal. The Court of Appeals held that the proceeding was for criminal contempt, and affirmed the judgment or decree of the Supreme Court of the District. From that judgment or decree the respondents applied for and obtained a writ of certiorari to the Supreme Court of the United States.

In the Supreme Court of the United States it was held that the contempt proceedings were for civil contempt in the original equity proceeding. Having so held, that court must have been of the opinion, although the term at which the final decree in the equity case was entered had ended and an appeal had been taken therefrom to the Court of Appeals for the District when the contempt proceedings were filed in the Supreme Court for the District, that the original equity suit was still pending in that court so far as the power of the court over the execution of the permanent injunction and the punishment of any infraction of it were concerned, for otherwise it could not have regarded the contempt proceedings for a violation of that *injunction as* being in the original equity proceeding, if the equity suit had ceased to exist after the term at which the final decree in it was entered had ended.

It seems clear that the Supreme Court of the United States must have regarded the permanent injunction issued in the Supreme Court of the District as operating to continue in that court "such jurisdiction over the subject-matter of the litigation and of the parties as to enable it to preserve the status quo pending the appeal, including power to take cognizance of a violation of its injunction," as it held in Merrimack River Savings Bank v. Clay Center, supra. See also Wilson v. Calculagraph Co., 153 Fed. 961 (1st Cir.).

So in the instant case, the permanent injunction made a part of the final decree in the original equity suit in the District Court for Massachusetts, operated, even after the close of the term at which it was entered, to continue in that court such jurisdiction over the subject matter of the litigation and of the parties as was necessary for it to retain power over and take cognizance of a violation of its injunction; which includes power to cause notice to be given the defendant such as the District Court should consider reasonable and necessary to notify and appraise it of the filing of the petition for contempt in the original equity proceeding.

Inasmuch as the District Court had jurisdiction over the subject matter and the parties to the equity suit, in which the contempt proceedings were filed, for the purpose of protecting and enforcing its injunction, the only thing requisite to its proceeding to a hearing and judgment in

the contempt proceedings was notice to the defendant of the petition and motion to show cause, so that it might be present at the hearing and take such action with reference thereto as it deemed proper. Notice in this case was brought to the attention of the Krentler-Arnold Company in two ways: one, by serving the requisite papers upon Mr. Hodder, then counsel of record in the equity suit; and second, by mailing such papers to the Krentler-Arnold Company at Detroit. There is no question but that Mr. Hodder notified the Krentler-Arnold Company of the receipt of the papers served upon him, and no question about the receipt by the Krentler-Arnold Company of the papers that were mailed to it, and that it had full notice of the petition and motion for contempt in the equity suit. In fact, it appeared and contested the matter. It is true that its appearance was special, but the court had jurisdiction over the subject matter and the parties and the defendant having received actual notice, there was no basis for a special appearance.

If nothing further appeared than that the papers were served upon Mr. Hodder, it might be regarded as a close question whether the District Court would have had authority to proceed to judgment in the contempt proceeding; that is, whether by reason of the final decree and the close of the term at which it was entered the authority of the attorney of record had terminated, so that notice could not properly be served upon him for the defendant. It would seem, however, that his authority as attorney of record did not then terminate, for the protection and enforcement of the permanent injunction, embodied in that decree, still vested the court with jurisdiction over the subject matter and the parties in the equity suit, and that his authority continued, so far as the service of notice of a violation of the injunction was concerned, the same as it would have had the decree in the equity suit been interlocutory, not final, granting an injunction. But we do not find it necessary to decide that question in view of the fact that the defendant otherwise had actual notice of the petition and the motion to show cause, filed in the equity suit.

The Krentler-Arnold Company also contends that the District Court was without authority to decree remedial relief except as a fine; and that, when imposed as a fine, the only remedy for the enforcement of its payment is by com-

mitting the defendant to jail until it is paid. The defendant is a corporation. If the payment of money awarded as remedial relief in the character of a fine can only be enforced against it by imprisonment, the power of the court in the execution of such a decree would be practically helpless. In such a situation we think the court may properly issue an execution for the collection of the fine as in the case of a money judgment or decree. See Eq. Rule 8, first sentence.

It may not be amiss to say that the injunction was not simply against the manufacture, use, or sale of the old infringing device complained of in the equity suit, or one colorably like it, as the Krentler-Arnold Company contends and would seem to think, but against the manufacture, use, or sale of an article "embodying or containing the invention covered by claims 1, 2, 3, 4, 6 and 7 * * * and any substantial or material part thereof, or any substantial equivalent or colorable imitation thereof."

But we are of the opinion that the District Court went far afield and exceeded its authority in decreeing that the complainants recover profits made by the respondent by the infringement of the Letters Patent. In Gompers v. Buck Stove & Range Co., supra, and Kreplik v. Couch Patents Co., supra, at page 569, it was pointed out that the proper remedial relief for the disobedience of an injunction in an equity case is to impose a "fine for the use of the complainant; measured in some degree by the pecuniary injury caused by the acts of disobedience." In other words, that the amount of the fine or remedial relief is to be governed largely by the pecuniary damage or injury which the act of disobedience caused the complainant. This pecuniary damage surely does not include profits which the defendant made by reason of the infringement. The item of profits should not have been allowed or taken into consideration in determining the remedial relief to which the complainants were entitled by way of fine or otherwise.

We also think that the court below erred in allowing the account of the complainants for fees for legal services, to the extent that there was included therein charges for investigation of law and facts in regard to Mr. Drew's liability, charges as to matters affecting the licensees of the Krentler-Arnold Company, and for the investigation of

law and facts with reference to the bringing of a supplemental bill, and charges for services in regard to a contemplated contempt proceeding against Krentler, other than the one before the court. In other words the charges should be confined to the expenses incurred and the legal services rendered in these contempt proceedings, and to such as were reasonably necessary.

The decree of the District Court is affirmed, except so far as it relates to the amount of the fine. In that respect it is vacated and the case is remanded to the District Court for further proceedings not inconsistent with this opinion. No costs.

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IN UNITED STATES CIRCUIT COURT OF APPEALS

DISSENTING OPINION

ANDERSON, J. (dissenting):

It seems plain to me that this is in effect a new infringement suit, determined under the guise of contempt proceedings to enforce the decree in the old infringement suit.

By final decree dated March 1, 1928, the Krentler-Arnold Company was held an infringer of the Peterson patent No. 1,195,266. Meantime, Krentler got up a new device for a hinged last, applied for and obtained a patent, granted December 30, 1930, No. 1,786,540. This new device, at least in appearance, is very different from the Peterson concept. Whether on a new infringement suit, brought in the proper forum, the court would conclude the patent office wrong in not holding it anticipated by the Peterson invention, seems to be a fairly arguable question.

But the fundamental objection to the majority opinion is that we have no jurisdiction to hold this Michigan corporation in contempt. The decree of March 1, 1928, was final—absolutely. The contempt proceedings were filed June 4, 1929. Concededly, only the original jurisdiction will avail the petitioner. This amounts to holding that, in equity, the jurisdiction of a District Court over foreign defendants is unlimited in time; that final decrees may be enforced by contempt proceedings begun at any time in the court of original jurisdiction.

If the jurisdiction of the court below over this Michigan corporation continued a year after final decree, it continued indefinitely; without new process the foreigner remained always subject to the originally obtained jurisdiction.

For such a doctrine I find no support. In Merrimack Bank v. Clay Center, 219 U. S. 527, and in the Gompers case, 221 U. S. 418, appeals were pending from the decrees disobeyed. No decree is final, in the sense now involved, pending appeal therefrom; the court above may affirm, modify or reverse that decree. The cases are not in point. Nor does Pitt v. Davison, 37 N. Y. 235,—a case in a code state,—help on this question of Federal jurisdiction.

If a judgment at law be unsatisfied, or a decree in equity be disobeyed, the remedy is clear,—to sue in the proper forum and to offer the judgment or decree as conclusive evidence of the rights alleged; it is res adjudicata, so far as, fairly construed, it covers such rights.

I think the decree below should be reversed and the petition dismissed for lack of jurisdiction.

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IN UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FIRST CIRCUIT

[Title omitted]

PETITION OF PLAINTIFFS-APPELLEES FOR REHEARING

The plaintiffs-appellees respectfully petition the Court to reopen and rehear so much of this case as is involved in that portion of the opinion of this Court dated March 10, 1931, which relates to the remedial relief granted, and particularly that portion of the printed opinion on pages 16 and 17 quoted as follows:

"But we are of the opinion that the District Court went far afield and exceeded its authority in decreeing that the complainants recover profits made by the respondent by the infringement of the Letters Patent. In Gompers v. Buck Stove & Range Co., supra, and Kreplik v. Couch Patents Co., supra, at page 569, it was pointed out that the proper remedial relief for the disobedience of an injunction in an equity case is to impose a 'fine for the use of the

complainant, measured in some degree by the pecuniary injury caused by the acts of disobedience.' In other words, that the amount of the fine or remedial relief is to be governed largely by the pecuniary damage or injury which the act of disobedience caused the complainant. This pecuniary damage surely does not include profits which the defendant made by reason of the infringement. The item of profits should not have been allowed or taken into consideration in determining the remedial relief to which the complainants were entitled by way of fine or otherwise.

"We also think that the court below erred in allowing the account of the complainants for fees for legal services, to the extent that there was included therein charges for investigation of law and facts in regard to Mr. Drew's liability, charges as to matters affecting the licensees of the Krentler-Arnold Company, and for the investigation of law and facts with reference to the bringing of a supplemental bill, and charges for services in regard to a contemplated contempt proceeding against Krentler, other than the one before the court. In other words the charges should be confined to the expenses incurred and the legal services rendered in these contempt proceedings, and to such as were reasonably necessary."

The grounds relied upon for this petition for rehearing are as follows:

1. This Court clearly erred in its statement that—

"* * * the District Court went far afield and exceeded its authority in decreeing that the complainants recover profits made by the respondent by the infringement of Letters Patent"—

because such a statement is directly opposed to and in conflict with United States Revised Statutes, sec. 4921, empowering the Courts under the patent laws—

"* * * to grant injunctions according to the course and principles of Courts of Equity, to prevent the violation of any right secured by patent, on such terms as the court may deem reasonable; and upon a decree being rendered in any such case for an infringement the complainant *shall be entitled to recover,* in addition to *the profits to be accounted for by the defendant,* the damages the complainant

has sustained thereby, and the court shall assess the same or cause the same to be assessed under its direction."

The statement of this Court is also opposed to and in conflict with well-established practice and procedure as established by cases of the United States Supreme Court and the cases of other Circuit Courts of Appeals.

2. The two cases cited, to wit, Gompers v. Buck Stove & Range Co., 221 U. S. 418, and Kreplik v. Couch Patents Co., 190 F. R. 565, do not support the finding of this Court that—

"The item of profits should not have been allowed or taken into consideration in determining the remedial relief to which the complainants were entitled—"

and such cases do not support the statement of this Court that—

"This pecuniary damage surely does not include profits which the defendant made by reason of the infringement."

3. The Court erred in not allowing the complainants' fees for legal services as found by the master and confirmed by the District Court, as the master and Court below found as a fact upon evidence not before this Court of Appeals that—

"The nature and character of these services was described in some detail by Mr. Spear by whom, and other members of his office force, such services were rendered.

"I find the charges to be reasonable for the services rendered and that such services were rendered wholly in connection with the preparation and prosecution of these contempt proceedings, and I therefore find in favor of the Belcher Company in the sum of $6,491.87 to cover costs and expenses including counsel fees incurred by the petitioners in preparing and prosecuting these contempt proceedings" (Rec. p. 266).

Fred Drew, as a director, was specifically named in the petition (Rec. p. 5), and a copy of the moving papers was served on Mr. Drew by registered mail (Rec. pp. 191, 194, 195, 205, 211). Mr. Krentler, as an officer of the Krentler Arnold Hinge Last Company, was bound by the injunction,

and as such was a party to contempt proceedings, "the one before the Court."

The "investigation of law and facts with reference to the bringing of a supplemental bill" was of necessity "reasonably necessary" before counsel for petitioner could conclude what was the proper procedure to follow. No other cause or procedure was instituted "other than the one before the Court."

## Argument Relating to Errors Herein Alleged

### First Ground

It is thought that this Court of Appeals is clearly in error in stating that—

"This pecuniary damage surely does not include profits which the defendant made by reason of the infringement. The item of profits should not have been allowed or taken into consideration in determining the remedial relief to which the complainants were entitled in way of fine or otherwise."

The principle of law thus enunciated and applied by this Court is contrary to and in conflict with the practice and law as laid down by the United States Supreme Court in the case of Worden v. Searls, 121 U. S. 14, at 24, opinion by Justice Blatchford, cited in the case of Matter of Christensen Engineering Company, 194 U. S. 458, opinion by Mr. Chief Justice Fuller.

In the case of Worden v. Searls the Court was considering a case in which the defendant had violated a preliminary injunction, and was held in contempt, and a fine was imposed for the violation of the injunction, together with costs of said proceedings. One of the orders, dated October 9, 1882, entitled in the suit, ordered—

"that said defendants, Alva Worden and John S. Worden, do pay a fine of eleven hundred and eighty-two dollars to the clerk of this court, to be paid over by said clerk to complainant for damages and costs, and that said defendants do stand committed until the same is paid."

The Supreme Court, in considering the elements which "made up" the fine, stated:

"It appears that the $1182 was made up of $682, the *profits of the defendants* on 62 gross of whip-sockets sold, and $500, expenses of the plaintiff in the contempt proceedings." (Italics ours.)

The Supreme Court further states, in considering the nature of the fines:

"But the fines were, in fact, measured by the damages the plaintiff had sustained and the expenses he had incurred. They were incidents of his claims in the suit. His right to them was, if it existed at all, founded on his right to the injunction, and that was founded on the validity of his patent."

In distinguishing the case from an earlier case, New Orleans v. Steamship, 20 Wall. 387, the Court states that——

"* * * though the proceedings were nominally those of contempt, they were really proceedings to award damages to the plaintiff, and to reimburse to him his expenses * * *"

The case of Worden v. Searls was later cited with approval in an opinion by Mr. Chief Justice Fuller in the case of Matter of Christensen Engineering Co., 194 U. S. 458, at page 460, which was a patent case involving the question of contempt for violation of an injunction.

The following is quoted from the opinion of Mr. Chief Justice Fuller (Matter of Christensen Engineering Co., 194 U. S. 460):

"In Worden v. Searls, 121 U. S. 14, the proceeding was remedial and compensatory, in that for violations of a preliminary injunction the defendants were ordered to pay the plaintiff $250 'as a fine for said violation', by one order, and, by another order, to pay a fine of $1,182 to the clerk, to be paid over by him to the plaintiff for 'damages and costs', the $1,182 being made up of *$682 profits made by the infringement*, and $500 expenses of plaintiff in the contempt proceedings. These interlocutory orders were reviewed by this court on appeal from the final decree, and as that decree was reversed, the orders were also set aside, this being done 'without prejudice to the power and right of the Circuit Court to punish the contempt referred to in

those orders, by a proper proceeding.' It was also said 'that, *though the proceedings were nominally those of contempt, they were really proceedings to award damages to the plaintiff, and to reimburse to him his expenses.*' " (Italics ours.)

The decree on the merits was reversed because of the invalidity of the reissue patent involved, but this does not affect the portion of the decision here relied on in Worden v. Searls.

The following is quoted from the case of Searls v. Worden, 13 F. R. 716 (Cir. Ct. E. D. Mich. 1882), which is the case which was referred to by the Supreme Court above in 121 U. S. 14, at 24:

BROWN, D. J.:

"This is an application to fix a penalty for contempt in selling 62 gross of whip-sockets in violation of an injunction against the sale of such sockets, which had been adjudged to be an infringement of complainant's patent. The sockets were sold in bulk to one Havens, upon the day the injunction was issued, and Havens thereafter disposed of them in small lots, received the money therefor, and paid it over to the defendant. This sale to Havens was, under the circumstances, adjudged by this court to be merely a subterfuge, the defendant Worden was adjudged guilty of contempt, and the case was referred to a master to compute the amount of profit realized by the defendant, together with complainant's costs and expenses. *The question now arises as to the amount of fine to be imposed,* and its distribution. The main question is whether the fine ought to be assessed at a gross sum in the nature of a penalty, to be paid over to the government, as in an ordinary criminal proceeding, or *whether it may be determined by the amount of profit realized by the defendant,* and the costs and expenses incurred by the complainant, *and the aggregate ordered to be paid over to the complainant in reimbursement of his damages* * * * But I notice that in *several cases the federal courts have adopted an analogous practice, and imposed a fine equivalent to the profits made by the defendants,* and the costs and expenses of complainant, and directed the same to be paid over to the latter

by way of reimbursement. In re Mullee, 7 Blatchf. 23; Doubleday v. Sherman, 8 Blatchf. 45.

"The validity of this practice is not discussed in these cases, and, without expressing any opinion of my own, *I am disposed,* with some hesitation *to follow them until corrected by a higher court. In this class of cases it is certainly consonant with justice. This renders it necessary to ascertain the amount of profits realized by the defendant,* and the amount of complainant's costs and expenses. * * * If, for instance, the master had reported defendant's profits at only five dollars, the imposition of a fine of $1,500, for expenses and counsel fees, would seem not only an unwarrantable encouragement of proceedings of this nature, but a possible infraction of the constitutional provision against cruel and unusual punishments.

"The aggregate of the other items is $1,182, which is imposed as a fine upon the defendant for the violation of this injunction and it is ordered that he be committed to the custody of the marshal until this fine be paid, and that the amount of such fine, when collected, be paid over to the complainant in satisfaction of his damages. [Italics ours.] See In re Cary, 10 F. R. 622, and note, 629."

The findings of this Court of Appeals are also inconsistent and in conflict with, and contrary to the principles of law applied and practice followed in, the Circuit Court of Appeals for the Second Circuit in the case of Gordon et al. v. Turco-Halvah Co., Inc., et al., 247 F. R. 487. This case was cited by the United States Supreme Court in Union Tool Co. v. Wilson, 259 U. S. 107, at 112, on the point of exercise of discretion of the Court in allowing compensation to the injured party for violation of injunction.

This case is a patent case involving contempt proceedings for violation of a final injunction after final decree. The Court held that the defendants "were accountable for all the profits." It stated that this "necessarily followed" after it had been shown before the master by plaintiff's proofs that the "homogeneity" was such as to bring the defendant's product under the patent as an infringing product. The Court further states: "Hence we hold that all the 'halvah' product was within the decree."

The finding of this Court and the law established is also contrary to and in conflict with the law of the Sixth Circuit

Court of Appeals, as applied in the case of Munroe Body Co. et al. v. Herzog, 18 F. R. (2d), 705, opinion by Circuit Judge Denison. This case is a patent case involving contempt proceedings for violation of an injunction. In this case the Court had imposed a private penalty that "was made additional to the damages *and profits that might be recovered* in the pending accounting, and was not to have any effect upon such accounting."

The Court further states:

"A private penalty of this kind is imposed, not to compensate for assessable damages and profits, but with reference to those items of damages which are not thus assessable" (Munroe Body Co. et al. v. Herzog).

It is clear from this opinion that the private penalty imposed by the Court was held to be proper, even though——

"it was made additional to the damages *and profits that might be recovered* in the pending accounting * * * *"

One distinction between the case of Munroe Body Co. v. Herzog and the present case is that in the present case before this Court the accounting to ascertain the assessable profits made by the defendants, which are by statute always recoverable by a plaintiff, has already been had before the master; whereas in the case of Munroe Body Co. v. Herzog et al. there was "the pending accounting."

The law as applied by this Circuit Court of Appeals is also in conflict with the law as applied in the Third Circuit Court of Apepals in McKee Glass Co. et al. v. H. C. Fry Glass Co., 248 F. R. 125. This is a patent case and relates to——

"the proceedings for contempt of the court's final decree, in which violation of the injunction is admitted and entire contempt for the court's decree is shown."

The following is further quoted as indicating the nature of the questions raised on appeal:

"The questions raised on this appeal are three: The first has to do with the principle upon which the court formulated a penalty against the defendants; the second and third relate to certain items in the amount of the penalty."

The penalty imposed by the Court was compensatory and remedial in character, and amounted to $25,151.70. One of the items included in this remedial award was: "Net infringing profits realized by defendants—$8,000.00."

No question whatever was raised as to the propriety of including, as an item in the remedial award for the contempt, the item of $8,000 as representing net infringing profits realized by defendants, so that the profits realized by the defendants was properly included and allowed in the award.

In that case the Court also included in the penalty or fine imposed an item of $10,000 as "additional compensation for complainant's injuries." The defendants charged that the Court abused its discretion by allowing $10,000 as additional compensation for the complainant's injuries. However, the Court of Appeals, in finally disposing of this matter, states:

"As there was evidence before the trial judge which is not before us, and as it is plain that in reaching his decree the trial judge considered that evidence, we must assume on authority of Pound v. Turck, 95 U. S. 459, 24 L. Ed. 525, and Wagner v. Standard Sanitary Mfg. Co., 244 Pa. 310, 91 Atl. 353, that there was sufficient evidence upon which to base the award of $10,000.00."

Other matters were considered by the Court in the opinion, but it is not necessary to enter into such matters. The important point is, however, that the Court did allow as one of the items constituting the penalty imposed in making the compensatory award from the remedial aspect of the case the "net infringing profits realized by defendants" amounting to $8000.

There certainly is no less guilt involved in the contemptuous acts of infringement by Krentler, by violating an injunction, than there is involved in acts of infringement in the original patent suit. The fact is, an act of infringement by violating an injunction already issued *in* more culpable and reprehensible than acts found to be infringing acts in an original patent suit. Section 4921 of the Revised Statutes provides that the Courts—

"shall have power to grant injunctions according to the course and principles of Courts of Equity to prevent the

violation of any right secured by patent on such terms as the Court may deem reasonable. And upon a decree being rendered in any such case for the infringement, *the complainant shall be entitled to recover in addition to the profits to be accounted for by the defendant*, the damages the complainant has sustained thereby *and the Court shall assess the same* or cause the same to be assessed under its direction."

Revised Statutes, sec. 4921, further provides as follows:

"and the Court shall have the same power to increase such damages in its discretion as is given to increase the damages found by verdicts in actions in the nature of actions of trespass on the case; * * *"

Revised Statutes, sec. 4919, is as follows:

"damages for the infringement of any patent may be recovered by action on the case in the name of the party interested either as patentee, assignee or grantee. And whenever in any such action a verdict is rendered for the plaintiff, the Court may enter judgment thereon for any sum above the amount found by the verdict as the actual damages sustained, according to the circumstances of the case, not exceeding three times the amount of such verdict together with the costs."

It is clear, therefore, that in any patent case the statutes specifically provide that in any event the plaintiff who prevails is entitled "to the profits to be accounted for by the defendant * * * and the court shall assess the same * * *" (Revised Statutes, sec. 4921).

This Court has found that the new device put out by the defendant, Krentler-Arnold Hinge Last Company, is a clear infringement in violation of the injunction already issued. This Court in its opinion states:

"It is clear that the new device answers in every respect the provisions of claims 2, 4, 6 and 7 of the Peterson patent and that the question of infringement is not doubtful or even merely colorable, but certain.

"We are therefore of the opinion that the District Court did not err or abuse its discretion in entertaining the con-

tempt proceedings and ordering the parties to trial thereon."

A party proceeding by way of contempt proceedings for infringement is certainly entitled to recover by way of an accounting for damages and profits all that could be recovered in an independent suit for the same infringement had the plaintiff elected to proceed by new and original bills.

Certainly there is nothing in the nature of a contempt proceeding where the defendant has been found to have violated an injunction which requires or impels a Court of Equity, in the exercise of any discretionary powers it may have, to so dispose of a case as makes it possible for a guilty party to profit by its own wrong by retaining profits made by acts found to be in violation of the injunction. In an ordinary infringement suit, without any regard to the question of contempt of court, a plaintiff under Revised Statutes, sec. 4921, is by law and statute always entitled to the profits made by defendant from the wrongful acts of infringement, which is a tort, and this is true whether or not the plaintiff suffered any pecuniary injury or damage. The granting of profits is remedial relief peculiar to patent cases under the statutes. This being true, it is impossible to conceive of any reason or logic which would impel a Court of Equity in the administration of justice to impose a smaller award where the defendant's acts have been found not only to have been an infringement, but in contempt, disrespect, and disregard of the injunction and orders of this Court.

The District Court found the Krentler-Arnold Hinge Last Company made a "clever imitation" of the Peterson invention—

"in a deliberate attempt to discover a means of availing itself of the invention without infringing."

The Court further stated:

"Since the beginning of this action for infringement which was originally by Krentler-Arnold Hinge Last Company, it has consistently disobeyed the orders of this court. It has now adopted an artifice * * *"

This Court stated:

"* * * the question of infringement is not doubtful or even merely colorable, but certain."

Surely there is nothing in the conduct of the Krentler-Arnold Hinge Last Company which appeals to the sympathy of the Court.

There is nothing in the conduct of the Krentler-Arnold Hinge Last Company which would warrant this Court, in the exercise of any discretionary power, in making such a disposition of the case as would enable Krentler-Arnold Hinge Last Company to profit from its own wrongful acts held by this Court to be in contempt and violation of its injunction.

The proposition that a successful plaintiff, in whose favor infringement is found, is entitled to the profits realized from the tortious acts—the acts of infringement—is so fundamental, elemental, and well established that it would be difficult to find an authority in which the practice has even been questioned. Appellee, after diligent search, has been unable to find any authority for the disallowance of profits made by defendant in a patent suit. The nearest approach to this is where a Court has refused to give an accounting where the infringing acts have been on such a small scale and so insignificant as not to warrant the cost and expense of an accounting.

For another case in which the plaintiff was held to an accounting of damages and profits arising from violation of injunction see Macauley v. White Sewing Machine Co., 9 F. R. 698, opinion by Judge Blatchford, from which the following is quoted:

"The profits and damages from the infringement involved in the violation will remain to be accounted for in the suit."

The following quotations are taken from cases supporting the general practice of allowing defendants profits as remedial relief where plaintiff is entitled to injunction:

Tilghman v. Proctor, Proctor v. Tilghman, 125 U. S. 136, at 144:

Appeals from the Circuit Court of the United States for the Southern District of Ohio.

Mr. Justice GRAY:

"But upon a bill in equity by the owner against infringers of a patent, *the plaintiff is entitled to recover the amount of gains and profits that the defendants have made by the use of his invention.*

"This rule was established by a series of decisions under the patent act of 1836, which simply conferred upon the courts of the United States general equity jurisdiction, with the power to grant injunctions, in cases arising under the patent laws. Act of July 4, 1836, c. 357, § 17, 5 Stat. 124; Livingston v. Woodworth, 15 How. 546; Dean v. Mason, 20 How. 198; Rubber Co. v. Goodyear, 9 Wall. 788; Mowry v. Whitney, 14 Wall. 620; Littlefield v. Perry, 21 Wall. 205, 229; Mason v. Graham, 23 Wall. 261; Tremolo Patent, 23 Wall. 518; Cawood Patent, 94 U. S. 695; Mevs v. Conover, October Term, 1876, 11 Pat. Off. Gaz. 111; Elizabeth v. Pavement Co., 97 U. S. 126; Root v. Railway Co., 105 U. S. 189.

"*The reasons that have led to the adoption of this rule are, that it comes nearer than any other to doing complete justice between the parties; that in equity the profits made by the infringer of a patent belong to the patentee and not to the infringer; and that it is inconsistent with the ordinary principles and practice of courts of chancery, either, on the one hand, to permit the wrongdoer to profit by his own wrong* or, on the other hand, to make no allowance for the cost and expense of conducting his business, or to undertake to punish him by obliging him to pay more than a fair compensation to the person wronged."

At 148: "*The general rule has been sometimes said to be based upon the theory that the infringer is converted into a trustee for the owner of the patent, as regards the profits made by the use of his invention.* But, as has been recently declared by this court, upon an elaborate review of the cases in this country and in England, it is more strictly accurate to say, *that a court of equity, which has acquired, upon some equitable ground, jurisdiction of a suit for the infringement of a patent, will not send the plaintiff to a court of law to recover damages, but will itself administer full relief, by awarding, as an equivalent or a substitute for legal damages, a compensation computed and measured by the same rule that courts of equity apply to the case of a trustee who has wrongfully used the*

*trust property for his own advantage.* Root v. Railway Co., 105 U. S. 189, 214, 215.

"*The rule in equity of requiring an infringer to account for the gains and profits which he has made from the use of a patented invention,* instead of limiting the recovery to the amount of royalties paid to the patentee by third persons, *has been constantly upheld under the provision of the patent act of 1870, embodied in the Revised Statutes, which, beside reenacting the grant of general equity jurisdiction in patent cases, further enacts that 'upon a decree being rendered in any such case for an infringement, the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant,* the damages the complainant has sustained thereby, *and the court shall assess the same or cause the same to be assessed under its direction* and the court shall have the same powers to increase the same in its discretion that are given by this act to increase the damages found by verdicts in actions upon the case;' and thus expressly affirms the defendant's liability to account for profits as well as authorizes the court sitting in equity to award and to treble any damages that the plaintiff has sustained in excess of the defendant's profits. Act of July 8, 1870, c. 230, § 55, 16 Stat. 206; Rev. Stat. 4921; Birdsall v. Coolidge, 93 U. S. 64, 69; Marsh v. Seymour, 97 U. S. 348; Root v. Railway Co., above cited; manufacturing Co. v. Cowing, 105 U. S. 253; Garretson v. Clark, 111 U. S. 120; Black v. Thorne, 111 U. S. 122; Birdsell v. Shaliol, 112 U. S. 485, 488; Thomson v. Wooster, 114 U. S. 104.

* * * * * * *

"We are then brought to a consideration of the exceptions taken to the master's report in matters of fact, affecting the accuracy of his conclusions in respect to the amount of those profits, gains and savings. *In dealing with these exceptions, the conclusions of the master,* depending upon the weighing of conflicting testimony, *have every reasonable presumption in their favor, and are not to be set aside or modified unless there clearly appears to have been error or mistake on his part.* Medsker v. Bonebrake, 108 U. S. 66; Donnell v. Columbian Ins. Co., 2 Sumner, 366, 371; Mason v. Crosby, 3 Woodb. & Min. 258, 269;

Paddock v. Commercial Ins. Co., 104 Mass. 521, 531; Richards v. Todd, 127 Mass. 167, 172."

At 160: "If the question thus presented were a new one, it would require grave consideration. *But by a uniform current of decisions of this court, beginning thirty years ago, the profits allowed in equity, for the injury that a patentee has sustained by the infringement of his patent,* have been considered as a measure of unliquidated damages, which, as a general rule, and in the absence of special circumstances, do not bear interest until after their amount has been judicially ascertained; and the provision introduced in the patent act of 1870, regulating the subject of profits and damages, made no mention of interest, and has not been understood to affect the rule as previously announced. Silsby v. Foote, 20 How. 378, 387; Mowry v. Whitney, 14 Wall. 620, 651; Littlefield v. Perry, 21 Wall. 205, 229; Act of July 8, 1870, c. 230, §55, 16 Stat. 206; Rev. Stat. 4921; Parks v. Booth, 102 U. S. 96, 106; Railway Co. v. Root, 105 U. S. 189, 198, 200, 204; Illinois Central Railroad v. Turrell, 110 U. S. 301, 303." (Italics ours throughout.)

Westinghouse Electric & Manufacturing Co. v. Wagner Electric & Manufacturing Co., 225 U. S. 604, at 615:

Certiorari to the Circuit Court of Appeals for the Eighth Circuit.

Mr. Justice LAMAR:

"2. In considering the question presented by the record here, it is to be borne in mind that Congress has legislated (Rev. Stat., 4921) with a view of affording the patentee ample redress against the infringer. It not only makes the latter liable for damages—sometimes three-fold damages, but for all profits derived from the use or sale of plaintiff's invention."

Dowagiac Mfg. Co. v. Deere & Webber Co., Deere & Webber Co. v. Dowagiac Mfg. Co., 284 F. R. 331:

Circuit Court of Appeals, Eighth Circuit, September 11, 1922.

KENYON, Circuit Judge:

Page 338: "(4) *The owner of the patent is entitled to an accounting for profits as well as to a recovery of damages.*

*Profits represent what the wrongdoer has made in wrongfully dealing in other people's property. There is no right in equity for him to keep them. To take the profits from him is merely taking what he amassed in the wrongful business of infringing on others' rights, and tends to make such business unpopular.''*

Page 339: "* * * Likewise, the accounting for profits is on an entirely different theory from the recovery for damages, namely: That an infringer, even though a tort-feasor and liable in damages, may also be charged as a trustee de son tort, and be liable as such to account for gains and profits. In the Brennan Case, 162 Fed. 472, 89 C. C. A. 392, the court said:

"'In a proceeding against an infringer for profits, the defendant may not inaptly be regarded as a trustee de son tort.'

"This was expressed by the trial court as follows (page 11, transcript of record, Deere & Webber):

"'To say that an infringer of a patent is a tort-feasor, and to stop there, is to state only part of the true situation. An infringer is a tort-feasor, and liable in damages; he may also occupy the position of a trustee de son tort, and be liable for gains and profits. In both capacities he is subject to injunction.'

"On the general subject of joint tort-feasors and their release the following cases are instructive:

"In Elizabeth v. Pavement Co., 97 U. S. 126, 24 L. Ed. 1000, hereinbefore referred to, the court, speaking of profits, said:

"'The subject, as a whole, is surrounded with many difficulties, which the courts have not yet succeeded in overcoming. * * * *It is also clear that a patentee is entitled to recover the profits that have been actually realized from the use of his invention.*'"

Page 350: "* * * *The wrongdoer is not allowed to keep the profits he has made by selling an article which is an infringement of another's patent.*"

Beach v. Hatch, 153 F. R. 763, at 764:

Circuit Court, District of Massachusetts, May 15, 1907.

COLT, Circuit Judge:

"*Under section* 4921 *and the decree entered in this case the master should have proceeded, first, to ascertain de-*

*fendant's profits;* and, second, complainant's damages. *The complainant could then elect to have a decree entered for either profits or damages.* Tilghman v. Proctor, 125 U. S. 136, 142-150 8 Sup. Ct. 894, 31 L. Ed. 664."

Page 765: "* * * *The former are 'the profits, gains, savings, and advantages' which have accrued to the defendant by the use of the infringing machines, and which are recoverable on the principle that equity will not permit a wrongdoer to profit by his own wrong,* while the latter are the actual damages sustained by the complainant, which are recoverable on the principle of compensation for the loss he has suffered by the wrongful act of the defendant.' "

Second Ground

The two cases relied upon by the Court, Gompers v. Buck Stove & Range Co., 221 U. S. 418, and Kreplik v. Couch Patents Co., 190 F. R. 565, are in no respect authority for the statement of this Court that—

"* * * the District Court went far afield and exceeded its authority in decreeing that the complainants recover profits made by the respondent by the infringement of the letters patent."

"This pecuniary damage surely does not include profits which the defendant made by reason of the infringement. The item of profits should not have been allowed or taken into consideration in determining the remedial relief to which the complainants were entitled by way of fine or otherwise."

While the Gompers case was a case involving civil contempt, it was not a patent case, and did not and could not involve any question as to the allowability of defendants' profits as part of the remedial relief. This question could not arise on the facts of the Gompers case.

In the United States Supreme Court case of Worden v. Searls, 121 U. S. 14, the Court considered an order in contempt and imposed "a fine of $1182—for damages and costs," and the Supreme Court stated that—

"It appears that the $1182 was made up of *$682, the profits of the defendants* * * * and $500 expenses of the plaintiff in the contempt proceedings."

While the case of Kreplik v. Couch Patents Co., 190 F. R. 565 (1 C. C. A.), is a patent case involving contempt, no question whatever of the allowability of profits was considered. It does not appear that the defendant realized any profits. There was no accounting. The sales by defendant constituting the contemptuous acts were only of sixteen single cots. The profits, if any were realized, would have been insignificant and would not have warranted the expense of an accounting. The criminal aspect dominated in the above case, which involved a second contempt.

This Court would be going contrary to express statutory direction contained in Revised Statutes, sec. 4921, if it refused to award the defendant's profits to the plaintiff where infringement has been found and after accounting, the defedant's own figures show that defendant realized profits of $39,596.26 from the sale of the device found to be not only an infringement, but in contempt and violation of the injunction of this Court.

United States Revised Statutes, sec. 4921, states:

"The several courts vested with jurisdiction of cases arising under the patent laws shall have power to grant injunctions according to the course and principles of courts of equity, to prevent the violation of any right secured by patent, on such terms as the court may deem reasonable; and upon a decree being rendered in any such case for an infringement the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained thereby, and the court shall assess the same or cause the same to be assessed under its direction."

This contempt proceeding, being wholly remedial and compensatory in character, arises out of and is a part of the original proceeding, and the elements and factors enterng into the remedial relief are—

"incidents of his [appellees'] claims in the suit. His right to them was, if it existed at all, found on his right to the injunction, and that was founded on the validity of his patent" (Worden v. Searls, 121 U. S. 14) (brackets ours).

The appellees' right to the profits of the defendant realized from the infringing acts found in contempt by this Court is—

"founded on [appellees'] right to the injunction, and that [is] founded on the validity of [appellees'] patent" (brackets ours)—

as found by this Court.

In the absence of any clear and specific prohibition and limitation upon the powers and authority of the Court, and in so far as it lies within the discretionary powers of a Court of Equity, it seems to be clear that, in order to do full, complete, and substantial justice, and in order to make it impossible that a tort-feaser may not profit by his own wrong, the Court should include, in the remedial relief granted, the profits which the defendant admits it has made by the acts of infringement in contempt of the injunction.

The Supreme Court has indicated that, in considering the questions involved in contempt proceedings and whether compensation shall be made to the injured party, there may be occasion for the exercise of judicial discretion. The following is quoted from Union Tool Co. v. Wilson, 259 U. S. 107, at 112:

"In the determination of the question whether an injunction has been violated and, if so, whether compensation shall be made to the injured party, there may be occasion for the exercise of judicial discretion; but the order to be entered in such a proceeding is not exclusively or necessarily a discretionary one. See Christensen Engineering Co. v. Westinghouse Air Brake Co 135 F. R. 774. Gordon v. Turco Halvah Co. 247 F. R. 487. Moreover, legal discretion in such a case does not extend to a refusal to apply well settled principles of law to a conceded state of facts. See Winchester Repeating Arms Co. v. Olmstead 203 F. R. 493, 494; In re Sobol 242 F. R. 487, 489."

Upon the simple equities of the case, upon the practice of the Supreme Court and cases in other circuits, and upon the express statutory provisions granting the complainants, "the profits to be accounted for by the defendant" (R. S. sec. 4921) "upon a decree being rendered in any such case for an infringement, * * * according to the course and principles of courts of equity, to prevent the violation of any right secured by patent," it is difficult to see how the Court, in the exercise of any "legal discretion," could

deny the right of plaintiffs to recover the profits made by defendant, as part of their remedial relief to which they are entitled in this proceeding for contemptuous acts of infringement by defendant.

Judge Baker, of the Circuit Court of Appeals for the Seventh Circuit, in the case of Winchester Repeating Arms Co. v. Olmsted, 203 F. R. 493, in referring to the discretion of the Court, stated:

"But discretion (which must be legal discretion, not merely the individual view or will of the particular chancellor) does not extend to a refusal to apply well settled principles of law to a conceded and indisputable state of facts."

Circuit Judge Rogers, speaking for the Circuit Court of Appeals for the Second Circuit in In re Sobol, 242 F. R. 487, stated:

"* * * and it is also settled, in the absence of statutory regulation, that the matter of dealing with contempts and how they should be punished are within the trial court's sound discretion, and that such discretion will not be interfered with, unless it has been grossly abused."

Judicial Code, sec 268 (U. S. R. S. sec. 725), expressly empowers the Court—

"* * * to punish, by fine or imprisonment, *at the discretion of the court,* contempts of their authority."

Where the contempt assumes a civil aspect as involving the rights of the plaintiff, there is certainly nothing in section 725 which precludes or prevents a Court from granting, as a measure of the fine, the recovery of defendant's profits made by the infringing acts held to be in contempt, where this is the right given by statute, U. S. R. S. sec. 4921, to the plaintiff.

It surely cannot be said that the District Court "grossly abused" its discretion when it made such a disposition of the case in awarding remedial relief, as a measure of the fine, as was in accordance with U. S. R. S. sec. 4921, and such as made it impossible for a tort-feasor to profit from its own wrong.

For a case in this District of Massachusetts involving civil contempt for violation of an injunction, in which as part of the remedial relief the Court ordered the defendant to pay—

"*certain profits assessed by the master,* by certain other days, and in default of payment to be committed"—

see Hendryx et al. v. Fitzpatrick, 19 F.R. 810 (Circuit Court, Dist. Mass., April 2, 1884); opinion by Judge Lowell. This case cites with approval the case of Searls v. Worden, 13 F.R. 716.

On the question as to the propriety of applying the usual modes of proceeding in patent cases on the equity side of the Court, considering particularly U. S. R. S. sec. 4921, to proceedings for civil contempt on the equity side of the Court, where remedial relief is granted, the following quotation from the opinion of Judge Lowell in Hendryx v. Fitzpatrick is noted, at page 812:

"The courts have power to punish for contempt, (Section 725) but all forms and modes of proceeding which are usual in equity may be followed in cases in equity. Sec. 912."

It is a maxim of equity that, where a Court of Equity has once acquired jurisdiction of the parties and subject-matter, a Court of Equity will grant full and complete justice wherever possible, without requiring a party to resort to other actions in different forums. This Court of Equity has acquired jurisdiction of the parties and subject, and it appears that the defendant has made profits from wrongful acts of infringement in violation of an injunction. It would seem clear from the simple logic and reason and upon the equitable principles that the Court is authorized to grant every remedial relief in this contempt phase of the proceeding, which is incidental to, a part of, and a continuation of the original relief, which was accorded in the original cause, without imposing on plaintiffs the burden of taking further independent action in a foreign jurisdiction. Further, it should not be necessary for plaintiffs to bring any further supplementary or ancillary proceeding in the present cause, because in the petition there was included a prayer for the profits of Krentler Company

"resulting from the further acts of infringement in violation of the injunction" (see Rec. p. 7).

A prayer for general equitable relief was also made as follows:

"That defendant counterclaimants have such other and further relief as justice and equity may require."

In order that there might be no confusion in this case on appeal as to whether this contempt was criminal or civil in nature, appellees, when the order and decree below was entered, refrained from the use of any words or characterizations that might in any way indicate that the award was of punitive character. While in some instances the Supreme Court has indicated that, where the word "fine" is used, an element of criminality is imputed or involved, the decree below was prepared in such language as to make it certain that the Court below ultimately disposed of the case on the basis of civil contempt alone as involving the private rights of the appellees.

See New Orleans v. Steamship Co., 20 Wall. 387: "The imposition of the fine was a judgment in a criminal case."

In determining the remedial relief, the rights of appellees as determined by statute and the adjudicated cases, involving patent infringement, would seem to be a fair, safe, and reasonable guide to follow. In applying such tests it would seem to be clear that appellees are entitled to profits made by the Krentler Company, from the wrongful acts of infringement, together with the costs and expenses to which appellees have been put in these proceedings, in the lower Court and also in this Court of Appeals.

If appellees are entitled to the costs and expenses in the District Court, it is difficult to see why appellees are not also fairly entitled to its costs and expenses in this Court of Appeals, including its counsel fee and the cost of preparing and printing briefs, particularly where this Court has affirmed the lower Court and found the defendant guilty of contempt and found "that the question of infringement is not doubtful or even merely colorable, but certain." This would appear to involve a wilful and deliberate violation, wholly unjustifiable and inexcusable, which would warrant even a trebling of any award.

In some contempt cases, particularly where the defendant found guilty has been imprisoned, the Courts have con-

sidered the right to pardon in order to obtain the release of the party. Whether or not there is any such right in the Crown, the President, or the Court depends upon whether the contempt is criminal in nature for the benefit of the state, or whether it is civil in nature as involvng the "vested private right" of the plaintiff. In In re Wm. Mullee, 7 Blatch. 23, at 28 and 29, Judge Blatchford said:

*"If the right to the fine should be regarded as a vested private right in the plaintiff in the suit,* existing in the shape of a judgment, this court would have no right to discharge it." (Italics ours.)

See also In re Nevitt (8 C.C.A., Opinion by J. Sanborn), 117 F.R. 448, at 458-459.

In the case of In re Nevitt, in commenting upon the lack of authority or power of the President to pardon for civil contempt involving private rights, it is stated:

"He has no more power to deprive private citizens of their lawful rights and legal remedies without compensation than have the courts or the congress."

It would seem, in this case before the Court, that this Court is without power to deprive the appellees of their lawful rights by refusing to allow the profits wrongfully made by defendant, to which profits they are clearly entitled under Revised Statutes, sec. 4921.

The Court in the Nevitt case was considering a civil contempt case, and defined it as—

"A proceeding instituted for the purpose of protecting and enforcing the private rights and administering the legal remedies of the judgment plaintiff, Douglas" (117 F.R. at 458).

Under the statutes and the adjudicated cases the appellees are surely entitled in this proceeding to the profits made by the Krentler Company. In the original proceedings the Krentler Company was held liable for the profits made by it arising from its original infringement. It is difficult to understand why appellees should not be entitled to the profits made by Krentler Company in this contempt proceeding arising from continued acts of infringement in wilful and deliberate violation of the injunction.

If this were a criminal contempt case, it could be readily understood why the fine should not be based on the amount of the profits made by the appellant.

It is respectfully suggested that the Court has been somewhat confused in its conception as to what should be the measure of the fine in a criminal contempt as distinguished from a civil contempt. The case of Kreplik v. Couch Patents Co., 190 F. R. 565, relied upon by the Court, was a case involving a second contempt, in which the criminal aspect dominated the case. The Court stated:

"The case now before us, was in its dominant element, confessedly and unquestionably a criminal proceeding" (190 F.R. at p. 571).

That case is no authority on the question of the amount of compensation awarded. The opinion states:

"This court is not called upon to pass upon the question whether or not the compensation so awarded is excessive. Questions as to the amount of compensation to the petitioner are not properly raised."

It appears in that case that "the Circuit Court imposed a fine in the absence of evidence showing the expense incurred by the petitioner" (at p. 568). This was assigned as error by defendant, but was not considered by the Court, because "he did not rely upon such assignment in his exceptions. He did not make them a part of his exceptions. Thus the question of the reasonableness of compensation is not before us."

In the case now before this Court an accounting was had, and the master's report, stating the profits made by Krentler, and the expenses incurred and paid by appellees, was approved by the District Court. The master's report was based upon evidence produced before him, which evidence is not before this Court.

See McKee Glass Co. v. Fry Glass Co., 248 F.R. 125, which states:

"As there was evidence before the trial judge which is not before us, and as it is plain that in reaching his decree the trial judge considered that evidence, we must assume on authority of Pound v. Turck, 95 U. S. 459, 24 L. Ed. 525, and Wagner v. Sanitary, 244 Pa. 310, 91 Atl. 353, that

there was sufficient evidence on which to base the award of $10,000.

No assignment of error has been made that the finding of the master as to the profits made by Krentler Company or the expense incurred by appellees either was contrary to the evidence or was without support of any evidence. The finding of the master as affirmed by the Court should not be disturbed unless for clear error. See Adamson v. Gilliland, 242 U.S. 350, at p. 353:

"* * * *so far as the finding of the Master or Judge* who saw the witnesses depends upon conflicting testimony or upon the credibility of witnesses, or *so far as there is any testimony consistent with the finding, it must be treated as unassailable.*" (Italics ours.)

The master found, with reference to the expenses incurred by appellees:

"*all of these charges for services* except the charge of $251.48 for the month of April, 1930, *have been paid by the Belcher Company.* The nature and character of these services was described in some detail by Mr. Spear by whom, and other members of his office force, such services were rendered.

"I find the charges to be reasonable for the services rendered and that *such services were rendered wholly in connection with the preparation and prosecution of these contempt proceedings*, and I therefore find in favor of the Belcher Company in the sum of $6,491.87 to cover costs and expenses, including counsel fees incurred by the petitioners in preparing and prosecuting these contempt proceedings." (Italics ours.)

The remedial relief as made by the master and confirmed by the Court should be affirmed by this Court.

Respectfully submitted.

J. Howard Leman, Administrator C.T.A.; George E. Belcher Company, Plaintiffs-Appellees, by Ellis Spear, Jr., Edward N. Goding, Eiffel B. Gale, Attorneys for Plaintiffs-Appellees.

We hereby certify that we have read the foregoing petition for rehearing, and that in our opinion it is well founded

and presents grounds whereon rehearing ought to be granted, and we further certify that it is not intended for purposes of delay, and that all matters of fact therein represented and not appearing of record are true.

Ellis Spear, Jr., Edward N. Goding, Eiffel B. Gale,
Attorneys for Plaintiffs-Appellees.

COMMONWEALTH OF MASSACHUSETTS,
County of Norfolk, ss:

April 3, 1931.

Then appeared the above-named Ellis Spear, Jr., Edward N. Goding, and Eiffel B. Gale, and made oath that the foregoing certificate, signed by them, is true, to the best of their knowledge and behalf.

Before me, Henry W. Jarvis, Notary Public. My commission expires September 15, 1931.

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IN UNITED STATES CIRCUIT COURT OF APPEALS FOR THE FIRST CIRCUIT, OCTOBER TERM, 1930

No. 2525

KRENTLER-ARNOLD HINGE LAST COMPANY, Defendant, Appellant,

v.

J. HOWARD LEMAN, Administrator C. T. A., et al., Plaintiffs, Appellees

Appeal from the District Court of the United States for the District of Massachusetts

Before Bingham, Anderson and Wilson, JJ.

OPINION OF THE COURT ON REHEARING—June 29, 1931

BINGHAM, J.:

Since our opinion in No. 2525 was handed down on March 10, 1931, the plaintiffs, appellees, have filed a petition for rehearing and a rehearing has been had on the question whether we were right in overruling the action of the District Court in awarding to the plaintiffs in this con-

tempt proceeding the profits which the defendant had made in the sale of its new infringing device.

Diligent search on the part of counsel and of this court has failed to discover any case in which this question has been directly raised and decided by a Court of Appeals or by the Supreme Court.

In Searls v. Worden, 13 Fed. 716, Brown, District Judge, sitting in the Circuit Court for the Eastern District of Michigan, in 1882 had a similar question under consideration. That was an equity patent suit in which an interlocutory decree and injunction had been entered restraining the defendant from infringing the plaintiff's patent for whip sockets. On the day the injunction issued the defendant sold 62 gross of whip sockets in violation of the injunction. Contempt proceedings having been brought, the defendant was adjudged guilty of contempt, and the case was referred to a master to compute the amount of profit realized by the defendant, together with complainant's costs and expenses. In the course of the opinion the court stated: "The question now arises as to the amount of fine to be imposed, and its distribution. The main question is whether the fine ought to be assessed at a gross sum, in the nature of a penalty, to be paid over to the government, as in an ordinary criminal proceeding, or whether it may be determined by the amount of profit realized by the defendant, and the costs and expenses incurred by the complainant, and the aggregate ordered to be paid over to the complainant in reimbursement of his damages." And after some further observations in relation to the matter as to the practice in state courts under state statutes, the court further observed: "But I notice that in several cases the federal courts have adopted an analogous practice, and imposed a fine equivalent to the profits made by the defendants, and the costs and expenses of the complainant, and directed the same to be paid over to the latter by way of reimbursement. In re Mullee, 7 Blatchf. 233; Doubleday v. Sherman, 8 Blatchf. 45. The validity of this practice is not discussed in these cases, and, without expressing any opinion of my own, I am disposed, with some hesitation, to follow them until corrected by a higher court."

The profits from the sale of the whip sockets being found to be $682 and the complainant's expenses incurred in the contempt proceeding $500, not including counsel fees,

which were disallowed, the court imposed their aggregate amount of $1,182, as a fine for the violation of the injunction and ordered that that amount, when collected, be paid over to the complainant.

A final decree having been entered for the complainant, an appeal was taken to the Supreme Court. In the Supreme Court the final decree in the equity suit and the interlocutory decree in the contempt proceedings were reviewed. It was held that the complainant's patent, upon which the suit was based, was invalid. As to the jurisdiction of the Supreme Court to review these contempt orders, the appellee contended that the contempt proceedings were criminal in character and therefore the court was without jurisdiction to review the orders. The court, however, pointed out that the contempt proceeding was brought in the equity suit and that the fine imposed was remedial in character, being made up of the profits of the defendant from the sale of the whip sockets and the expenses incurred by the complainant in the contempt proceeding, and that the fine was directed to be paid to the complainant; and, such being the case, the interlocutory orders were subject to review on the appeal from the final decree in the suit. It then stated that the complainant's right to the fine, if it existed at all, was founded on his right to the injunction, and that was founded on the validity of his patent; and, the patent having been found invalid, the preliminary injunction was unwarranted and the orders imposing the fine could not be upheld. In its decree it reversed the final decree and the contempt orders and remanded the case with directions to dismiss the bill, but without prejudice to the power and right of the Circuit Court to punish the contempt referred to in those orders by a proper proceeding,—meaning, no doubt, that the Circuit Court, on proceedings being instituted for criminal contempt, had the right to impose a fine payable to the United States for the contempt of court. It is evident that in this case the Supreme Court did not decide that, in a contempt proceeding, in a patent suit, profits made by a defendant through violating an injunction could be considered as an element in determining the amount of the fine imposed by way of relief to the complainant. However, what was here spoken of as profits, was nothing but damages which the plaintiff

suffered by reason of the defendants selling the plaintiff's patented whip sockets.

The only other patent case involving contempt orders before the Supreme Court which has been brought to our attention as having a possible bearing on the question is, The Matter of Christensen Engineering Company, 194 U. S. 458. This was an application to the Supreme Court for a writ of mandamus to require the Circuit Court of Appeals for the Second Circuit to reinstate and take jurisdiction of a writ of error for a review of an order of the Circuit Court finding the defendant guilty of contempt and fining it. In that case it appeared that, after an injunction had issued restraining the defendant from infringing the plaintiff's letters patent, the defendant was adjudged guilty of contempt in disobeying the injunction and was ordered to pay a fine of one thousand dollars, one half to the United States and the other half to the complainant; that a writ of error to review this order was sued out and allowed by the Circuit Court on March 25, 1930, and a transcript of the proceedings certified to the Circuit Court of Appeals; and that, after a hearing on the writ of error, the Court of Appeals dismissed the writ.

The Supreme Court held that the fine payable to the United States was clearly punitive and in vindication of the authority of the court, and, being such, it dominated the proceeding and fixed its character; and that being punitive and not remedial, the method of review was by writ of error and the Circuit Court of Appeals should have taken jurisdiction, without waiting for an appeal from a final decree. This case, certainly, has no bearing upon the question of whether, where the proceedings in contempt are remedial in nature, profits, as such, may be taken into consideration in making up the fine.

McKee Glass Co. v. H. C. Fry Glass Co., 248 Fed. 125 (3rd Circuit) was an equity patent suit in which contempt proceedings were instituted for the violation of a permanent injunction after final decree. In that case the trial court referred all matters of the complainants' injuries and compensation to a master. The master reported, in round numbers, the following items: Net infringing profits realized by defendants, $8,000; royalty at six per cent on defendants' entire sales of $41,713.97, $2,500; complainants' expenses and costs, and master's fee, $4,700; addi-

tional compensation for complainant's injuries, $10,000. And the trial court imposed a penalty of $25,151.70. The assignments of error in that case complained of all these items, except the one for $4,700. But at the argument counsel waived all their assignments except those relating to the item of $10,000 and the royalty item of $2,500. Consequently the question of whether the item of $8,000 profits was a proper allowance was not passed upon. The royalty item of $2,500 was passed upon and was plainly an item of damage. Whether the item of $8,000 represented damage suffered through the infringing sales cannot be gained from the record. At any rate all objection to the allowance of this item was waived and the question was not considered.

Gordon et al. v. Turco-Halvah Co., Inc., et al. (2nd Circuit), 247 Fed. 487, is an equity patent suit in which, on March 4, 1915, a final decree was entered by consent of both parties adjudging the plaintiffs sole owners and exclusive licensees under the two patents in suit; also adjudging that the defendants had infringed both patents; and enjoining them against making any candy containing the inventions in question, or either of them, or any candy or food products like or similar to those that they, or any of them, had hitherto made. November 8, 1915, the plaintiffs procured an order to show cause why the defendants should not be punished for contempt. The District Court entered an order finding the defendants in contempt for violating the provisions of the final decree of March 5, 1915, in respect to one of the patents, but not as to the other, and directed a reference to a special master to ascertain the candy so sold in violation of that decree and the profits obtained therefrom. The master found the defendant's profits to be $2,129.70, to which he added the plaintiff's charges and disbursements in the contempt proceeding of $700.92, together with a counsel fee of $750, making in all $3,580.62. The District Court confirmed these findings with a modification of the amount of the counsel fee, and an order was entered on February 19, 1917, against the defendants, in the sum of $2,784.16, for which execution was directed to issue, and the defendants appealed therefrom.

The opinion in this case does not discuss the question, and it apparently was not raised, whether the District Court, after final decree in the original equity suit, could,

in a summary contempt proceeding, direct an accounting of profits made by the defendants from the infringing sales and take those profits into consideration in determining the amount of the fine to be imposed. No such question was raised or decided. The sum reported as profits was probably nothing but damages due to infringing sales.

Christensen Engineering Co. v. Westinghouse Air Brake Co. (2nd Circuit), 135 Fed. 774, is the same case above referred to under the name of The Matter of Christensen Engineering Co. that was before the Supreme Court, and involved the action of the Court of Appeals in two contempt proceedings which it was directed by the Supreme Court to review on writs of error. In this case the contempts consisted in violations of an interlocutory injunction restraining the defendant from infringing plaintiff's letters patent. In both contempt proceedings decrees had been entered finding the defendant guilty of violating the interlocutory injunction. In the first contempt proceeding the order or decree fined the defendant $1,000 and directed one half the fine to be paid to the clerk for the use of the United States and the other half paid to the complainants in the suit. In the second contempt proceedings the order or decree fined the defendant $4,000 and directed a like disposition of the fine.

The Court of Appeals affirmed the orders of the District Court so far as they imposed penalties payable to the United States, but reversed the orders so far as they directed payments to be made to the complainant, as the case did not disclose that the latter orders were "based upon any proved items of loss or expense"; that "a fine exceeding the indemnity to which the plaintiff is entitled is purely punitive"; and that, "when it is imposed by way of indemnity to the aggrieved party, it should not exceed his *actual loss incurred* by the violation of the injunction, including the expenses of the proceedings necessitated in presenting the offense for the judgment of the court." And where such expense is not shown, the expense item should be limited to the taxable costs.

Cheatham Electric Switching Device Co. v. Transit Development Co. (2d Circuit), 261 Fed. 792, was an appeal from a decree in a patent equity case, in which review was also sought of an interlocutory decree entered in a contempt proceeding. The plaintiff apparently complained

that the District Court erred in refusing to make the punishment in the contempt proceeding larger than it did. In considering the matter Judge Hough, speaking for the Circuit Court of Appeals, said:

"Contempt is not to be regarded as a source of revenue or additional damages to a complainant. A civil contempt, such as this, may result in reimbursing complainant, not for infringements as to which he may seek damages and profits before a master, but for losses and expenses to which he is subjected by the offender's contumacious conduct. This record shows no loss of any kind to plaintiffs by reason of defendant's delay in disconnecting the aforesaid apparatus, and its expenses were reasonably covered by the $150."

This decision of the Circuit Court of Appeals of the Second Circuit, like its other decision in Christensen Engineering Co. v. Westinghouse Air Brake Co., indicates that, in a civil contempt proceeding brought in an equity case, the fine constituting the complainant's reimbursement should consist of losses (damages) and expenses to which he has been subjected by the defendant's contumacious conduct; and that it should not include profits made through infringing sales which did not damage the plaintiff.

This seems to be the attitude of the Court of Appeals in the Sixth Circuit, as will be seen from an examination of the case of Monroe Body Co. v. Herzog, 13 Fed. (2d) 705. That was an appeal from a decree of the District Court in which it was sought to review an order or decree in a contempt proceeding instituted pending an accounting in the original case in which it was filed. In the contempt proceeding a fine was imposed to be paid to the plaintiff on account of the defendant's continuing infringements. In discussing the latter fine, the court said:

"The specific objection against the imposition of the private penalty is that it was made additional to the damages and profits that might be recovered in the pending accounting, and was not to have any effect upon such accounting. We see no objection to this. A private penalty of this kind is imposed, not to compensate for assessable damages and profits, but with reference to those items of damages which are not thus assessable."

The Court of Appeals in this Circuit in the case of Kralik v. Couch Patents Co., 190 Fed. 565 (1st Circuit), in a decision written by Judge Hale, reached a like conclusion. That was an equity patent suit in which proceedings for contempt were instituted against the defendant for breach of an injunction restraining him from infringing the plaintiff's patent. He was found guilty of contempt and was ordered to pay a fine of $500 to the clerk of court for the use of the petitioner. In that case it was said:

"In Gompers v. Bucks Stove & Range Co., 221 U. S. 418, the Supreme Court has lately passed upon this question. The court clearly draws the vital distinction between proceedings for civil contempt, which are between the original parties, and proceedings at law for criminal contempt, which are between the public and the defendant. The court holds that the proper remedial relief for a disobedience of an injunction in the equity cause before it would have been to have imposed a fine for the use of the complainant, measured in some degree by the *pecuniary injury* caused by the act of disobedience.

"The two aspects of contempt proceedings have often been before the Circuit Court in this circuit, where it has been clearly recognized that in an equity cause a fine for contempt imposed for the use of the petitioner is not a punitive fine, but merely indemnity to the petitioner for the *loss occasioned* to him by the offensive acts of the defendant."

In Gompers v. Bucks Stove & Range Co., 221 U. S. 418, at 443-444, the court said:

"In this case the alleged contempt did not consist in the defendant's refusing to do any affirmative act required, but rather in doing that which had been prohibited. The only possible remedial relief for such disobedience would have been to impose a fine for the use of complainant, measured in some degree by the *pecuniary injury* caused by the act of disobedience."

The Gompers case was not a patent case, but it was an equity case in which the contempt proceedings were brought. The fact that it was not a patent case can make no difference as to the nature of the elements of which the penalty may

consist. That case, the Kreplik case, and the cases in the Second and Sixth Circuits point out, if they point out anything, that a remedial fine in a contempt proceeding is to be based upon the pecuniary injury or damage, which the act of disobedience caused the complainant, and such reasonable expenses as the act of disobedience occasioned through the bringing of the proceeding. It is to compensate him for his damage thus occasioned. It is not an attempt to restore to him the profits which he might recover in an equity suit for discovery and accounting, where the sales were so conducted that the plaintiff could not be shown to have been thereby pecuniarily damaged.

If the plaintiffs in this case had been able to prove that the infringing sales, out of which the profits were realized, caused them to suffer pecuniary damage, or had been able to prove what would have been a reasonable royalty for the use of their patent and that they had lost the same through the defendant's conduct, they could have established a case for the allowance of damages arising out of the infringing sales. But they failed by either of these methods to show that they were pecuniarily injured and neither the master nor the court found that they suffered any damages.

This contempt proceeding in no way affects any equitable remedy which the plaintiffs have or may have had to recover profits, and the case of Root v. Railway, 105 U. S. 189, does not controvert this proposition. That case proceeds upon the theory that, in the absence of some recognized ground of equity jurisdiction, the owner of an expired patent cannot maintain a bill in equity for profits; that a bill "for naked account of profit" will not suffice. In this respect the plaintiffs' equitable remedy, if they have any, does not stand differently from what it would if this court had no jurisdiction to entertain the contempt proceeding and had dismissed it.

In view of the conclusion we have reached, our previous order in this case is affirmed.

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IN UNITED STATES CIRCUIT COURT OF APPEALS

DISSENTING OPINION

ANDERSON, J. (dissenting):

Still asserting, on the facts in this case, no continuing jurisdiction over this Michigan corporation, I now add that

(assuming jurisdiction and violation of the injunction) I can see no reason why the profits derived from the alleged violation of the injunction are not recoverable; that at least they may be taken as a guide in assessing petitioner's damages.

Rights, under a previously obtained injunction, are at least as great as rights under a presently obtained injunction. Violation of such rights ought to have like remedy, both in nature and in extent. The patent owner, if now suing in equity for infringement, could of course recover the infringer's profits. R. S., sec. 4921, 35 U. S. C. A., sec. 70.

But the present holding is that the persistent infringer, instead of being held, under R. S., sec. 4919, liable for punitive damages (no damages whatever being shown), shall escape all accountability for its profits, made as the result of its alleged contumacy.

In Brown v. Lanyon, 148 Fed. 838 (C. C. A., 8th) it was held that an action at law cannot be maintained for the sole purpose of recovering an infringer's profits. Compare Walker Patents, 5th Ed., sec. 555. In Root v. Railway, 105 U. S. 189, it was held that the owner of an expired patent could not maintain a bill in equity solely for an account of profits and damages, against an infringer during the life of the patent; that his only remedy was at law. Compare Tilghman v. Proctor, 125 U. S. 136, 148.

The present decision apparently leaves this appellant without any remedy, either at law or in equity, to obtain its just rights.

None of the cases cited and reviewed in the majority opinion seems to me to support the conclusion. The proceedings are purely remedial. I think the appellant entitled to full relief.

On January 20, 1931, this case came on to be heard, and was fully heard by the court, Honorable George H. Bingham, Honorable George W. Anderson and Honorable Scott Wilson, Circuit Judges, sitting.

Thereafter, to wit, on March 10, 1931, the opinion of the court (page 291) and a dissenting opinion (page 307) were filed, and the following Final Decree was entered:

IN UNITED STATES CIRCUIT COURT OF APPEALS

FINAL DECREE—March 10, 1931

This cause came on to be heard January 20, 1931, upon the transcript of record of the District Court of the United States for the District of Massachusetts, and was argued by counsel:

Upon consideration whereof, It is now, to wit, March 10, 1931, here ordered, adjudged and decreed as follows: The decree of the District Court is affirmed, except so far as it relates to the amount of the fine. In that respect it is vacated, and the case is remanded to the District Court for further proceedings not inconsistent with the opinion passed down this day. No costs.

By the Court.

Arthur I. Charron, Clerk.

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Thereafter, to wit, on April 9, 1931, a petition for rehearing (page 309) was filed by appellees.

Thereafter, to wit, on April 14, 1931, the following Order of Court was entered:

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IN UNITED STATES CIRCUIT COURT OF APPEALS

ORDER GRANTING REHEARING—April 14, 1931

The petition for rehearing filed April 9, 1931, is hereby granted and reargument, limited to the question of damages, is ordered.

By the Court.

Arthur I. Charron, Clerk.

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Thereafter, to wit, on April 29, 1931, this case came on to be heard on reargument on the question of damages, and was fully heard by the court, Honorable George H. Bingham, Honorable George W. Anderson and Honorable Scott Wilson, Circuit Judges, sitting.

Thereafter, to wit, on June 29, 1931, the opinion of the court on rehearing (page 341) and a dissenting opinion (page 350) were filed, and the following Order of Court was entered:

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IN UNITED STATES CIRCUIT COURT OF APPEALS

ORDER AFFIRMING FINAL DECREE—June 29, 1931

This case came on to be heard upon reargument April 29, 1931, upon the transcript of record of the District Court of the United States for the District of Massachusetts, and was reargued by counsel:

Upon consideration whereof, it is now, to wit, June 29, 1931, here ordered, as follows: It is ordered that the decree of March 10, 1931, be, and the same hereby is, affirmed.

By the Court.

Arthur I. Charron, Clerk.

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IN UNITED STATES CIRCUIT COURT OF APPEALS

ORDER OF STAYING MANDATE—July 18, 1931

Upon motion of appellees, It is ordered that the mandate in this case be, and the same hereby is, stayed until August 29, 1931.

By the Court.

Arthur I. Charron, Clerk.

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Clerk's certificate to foregoing transcript omitted in printing.

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SUPREME COURT OF THE UNITED STATES

ORDER ALLOWING CERTIORARI—Filed October 26, 1931

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the First Circuit is

granted. And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.

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Endorsed on cover: File No. 36,146. U. S. Circuit Court of Appeals, First Circuit. Term No. 332. J. Howard Leman, administrator C. T. A. of the estate of George E. Belcher, and George E. Belcher Company, petitioners, vs. Krentler-Arnold Hinge Last Company. Petition for writ of certiorari and exhibit thereto. Filed August 29, 1931. File No. 36,146.